# ALASKA FOREST RESOURCES & PRACTICES **REGULATIONS** June 2007


DIVISION OF FORESTRY
DEPARTMENT OF NATURAL RESOURCES

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# Forest Resources and Practices Regulations, 2007

## Through Register 182, July 2007 NATURAL RESOURCES

## Article 1. Introductory and notification provisions

**Section**



**11 AAC 95.185. Purpose and relationship to other laws**. (a) This chapter implements and interprets AS 41.17 (Forest Resources and Practices). For land outside riparian areas, the purpose of this chapter is to provide protection of important public resources, maintain an economically viable timber industry, prevent or minimize significant adverse effects of soil erosion and mass wasting on water quality and fish habitat, and ensure reforestation to the fullest extent practical, taking into account the economic feasibility of timber operations. For riparian areas, the purpose of this chapter is to protect these areas from significant adverse effects of timber harvest activities on fish habitat and water quality, taking into account the economic feasibility of timber operations.

(b) For all lands, the operations recognized under this chapter shall be conducted in a manner that does not cause or constitute a substantial factor in causing a degradation of water quality.

(c) The best management practices identified in this chapter for operations conducted under this chapter are the sole enforcement mechanism for violations of water quality standards. Data collected under 11 AAC 95.825 will be used to revise the best management practices as necessary to attain and maintain water quality standards.

(d) Nothing in this chapter affects the applicability of 18 AAC 70.015 or precludes the Department of Environmental Conservation from granting a variance from the antidegradation requirements of 18 AAC 70.010(c) and the water quality criteria of 18 AAC 70.020(b) for a project in accordance with the requirements of 18 AAC

70.015. A Department of Environmental Conservation variance does not relieve a forest manager, forest landowner, timber owner, or operator from meeting the requirements of (b) of this section or any other provision of this chapter.
(e) For state managed lands, the purpose of this chapter is also to ensure that forest land is administered for the multiple use of all resources and to ensure the sustained yield of renewable resources. This purpose is achieved through the provisions of this chapter in conjunction with AS 38 and appropriate land use plans.
(f) The purposes of this chapter are achieved by establishing measurable forestry standards, and providing the capability to tailor those standards to particular field conditions.
(g) For all public lands, the requirements of this chapter preempt the timber harvest and processing and habitat standards enacted under AS 46.40 (Alaska coastal management program). For private land, the interaction between this chapter and the Alaska coastal management program is set out in AS 41.17.900(e). For federal land, the interaction between this chapter and the Alaska coastal management program is set out in AS 41.17.900(b)(2).
(h) The regulations adopted in this chapter, as approved by the Department of Environmental Conservation, establish the review, riparian, monitoring, and field operation standards that, in conjunction with additional non-regulatory forestry components of the Department of Environmental Conservation's federally approved nonpoint source pollution control program under the 33 U.S.C. 1329 (Clean Water Act, sec. 319), as amended February 4, 1987, constitute the nonpoint source pollution control requirements for activities recognized in this chapter. (Eff. 6/10/93, Register 126)

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|---|---|---|---|
| **Authority:** | AS 41.17.010 | AS 41.17.055 | AS 41.17.080 |
| | AS 41.17.098 | AS 41.17.115 | AS 41.17.900 |

Editor's notes: The processing and habitat standards referred to in 11 AAC 95.185(g) currently appear in 6 AAC 80.100--6 AAC 80.130.

**11 AAC 95.190. Applicability**. (a) The provisions of this chapter apply to an operation on state land, other public land, or private forest land if all of the following criteria are met:

(1) the operation is on forest land as defined in AS 41.17.950;
(2) the operation involves any of the following activities:
(A) harvesting, including felling, bucking, yarding, decking, hauling, log dumping, log transfer, log rafting, and related road construction, reconstruction, improvement, or maintenance;
(B) road construction or reconstruction, material source development, and maintenance of an existing road or bridge not within the operation area, but connected with, the harvesting operation;
(C) site preparation;
(D) precommercial thinning;

(E) slash treatment; or

(F) any other activity leading to, or connected with commercial timber harvest; and

(3) a commercial operation that intersects, encompasses, or borders on surface waters or a riparian area, or that, for a single landowner or operator, equals or exceeds in the aggregate the following acreage:

(A) 10 acres in Region I;

(B) 40 acres in Region II; or

(C) 40 acres in Region III for land owners who own more than 160 acres in total; if a landowner has a total ownership of 160 acres or less, then an operation on any of that 160 acres or less is not a commercial forest operation.

(b) A land use conversion involving a commercial forest operation that meets the criteria in (a) of this section must meet the requirements of 11 AAC 95.200. (Eff. 6/10/93, Register 126)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080
AS 41.17.098 AS 41.17.900

Editor's Notes: Operations in waters containing fish may be subject to laws and regulations governing fish in AS 16 and 5 AAC.

**11 AAC 95.195. Clearing of spruce trees.** (a) Notwithstanding the provisions of 11 AAC 95.190, in order to minimize the spread of destructive forest insects and reduce the risk of wildfire, a landowner in Region II or III shall perform one or more of the practices identified in (b) of this section within one year, unless notified by the division, of clearing spruce trees, other than black spruce. A landowner in Region I must perform one or more of the practices identified in (b) of this section if notified by the division.

(b) The following practices may be performed to comply with (a) of this section:

(1) spruce trees or limbs greater than five inches in diameter may be disposed of by manufacturing into cants, lumber, houselogs, chips, or firewood;

(2) spruce trees or limbs greater than five inches in diameter may be disposed of by burning, subject to applicable regulations;

(3) downed and removed spruce trees or limbs greater than five inches in diameter may be treated or stored in an appropriate manner, if they are not burned, manufactured, or otherwise used in a way that will prevent the spread of bark beetles;

(4) spruce limbs greater than five inches in diameter may be dried by uniform scattering in areas open to sunshine if they are not burned or chemically treated.

(c) The division will, in its discretion, approve other methods for disposal or treatment of downed spruce trees to minimize the spread of bark beetles or reduce

the risk of wildfire.
(d) If notified by the division, a landowner must provide a slash management plan that addresses the requirements of this section. (Eff. 6/10/93, Register 126; am 2/24/2000, Register 153)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080
AS 41.17.082 AS 41.17.136

**11 AAC 95.200. Land use conversion.** (a) The requirements of 11 AAC 95.260 - 11 AAC 95.390 do not apply if a landowner intends to convert forest land to another use within five years after timber harvest and the land is converted or in the process of conversion within five years.
(b) If, five years after timber harvest, the land is not converted or actively in the process of conversion, a landowner shall meet the reforestation requirements of 11 AAC 95.375 - 11 AAC 95.390 within three years.
(c) If, as part of a land use conversion, a landowner intends to begin a commercial forest operation subject to 11 AAC 95.190, the following notification provisions apply:

(1) if the land use conversion is within a borough or municipality and the borough or municipality has granted a plat approval, a building permit, or other authorization for that specific land use, the operator is not required to notify the division; zoning of the land does not constitute an authorization;
(2) if the land conversion has not been authorized by a borough or municipality, the landowner shall notify the division before beginning the operation.

(d) If the division finds that a forest landowner has provided false information about the owner's intention to convert forest land as stated in the notice under (c)(2) of this section, the division will, in its discretion, require full compliance with AS 41.17. (Eff. 6/10/93, Register 126)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080

**11 AAC 95.210. Voluntary plan of operations**. (a) If a forest landowner, timber owner, or operator provides a voluntary plan of operations under AS 41.17.090 describing long term plans for timber harvesting, the division will, within 10 days after receipt of the plan, distribute a copy of the voluntary plan of operations to each agency. The division will distribute summary information to persons on the mailing list established under 11 AAC 95.225(a).
(b) In addition to the distribution under (a) of this section, within 60 days after a voluntary plan of operations has been filed, the division will review the voluntary plan of operations and provide a written response to the forest landowner, timber owner, or operator. The division will not consider any comments received more than 45 days after the date of filing of the voluntary plan of operations. The

division response to a voluntary plan of operations will identify areas of concern, provide local knowledge, and early notice of potential problems, including any conflicts with AS 41.17 and this chapter. The specificity of the division response will depend upon the quality and type of information supplied by the forest landowner, timber owner, or operator. The division will send a copy of all comments to the forest landowner, timber owner, or operator. (Eff. 6/10/93, Register 126)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080 AS 41.17.090

**11 AAC 95.220. Detailed plan of operations.** (a) Before beginning an operation on forest land, the operator shall file a detailed plan of operations with the state forester at the area office of the division with jurisdiction over the geographic area in which the operations will occur. A detailed plan of operations must be submitted on a form provided by the division and must include the following information:

(1) subject to the requirements of (b) of this section, the name, address, and approving signatures of the forest landowner, timber owner, and operator;

(2) a 1:63,360 scale USGS quadrangle map showing the area of operation and suitable for black and white duplication on 8-1/2 by 11-inch paper;

(3) four copies of a map at a scale providing the most detail available showing the proposed operation, including unit boundaries;

(4) the dates that the operation is expected to begin and end;

(5) the following surface water information:

(A) the location and, if applicable, the classification according to 11 AAC 95.265, of known surface waters that abut or are within harvest units;

(B) the approximate location of proposed stream crossings; a stream crossing must be designed and constructed in accordance with 11 AAC 95.300 and 11 AAC 95.305;

(C) the approximate location of stream crossings requiring approval by the deputy commissioner under AS 41.14.870; and

(D) the approximate location of surface waters for which the operator requests the deputy commissioner determine or verify the presence of fish by a field inspection;

(E) within harvest units along Type II-A and II-B water bodies, the location of outer bends subject to erosion;

(6) the boundaries of cutting units, harvest techniques, and, where known, the yarding techniques and location of landings;

(7) the following roading information:

(A) the approximate location of a mainline or spur road and whether the road is intended to be permanent or temporary;

(B) any road to be closed in accordance with 11 AAC 95.320 during the period of operation; and

(C) where known and consistent with 11 AAC 95.285(b), any known

road to be located in a riparian area for a reason other than a water crossing;

(D) in Region II and III, where known, the approximate location of any winter road intended to be used for more than one winter.

(8) to the extent known, the approximate location of a material extraction site as provided for in 11 AAC 95.325;

(9) the following slope information for areas that are located in cutting units or are traversed by roads:

(A) any known unstable or slide-prone slope;

(B) slope gradient greater than 67 percent; and

(C) where known, the site-specific erosion prevention measures developed under 11 AAC 95.290(a);

(10) reforestation and site preparation methods;

(11) [repealed 6/8/2007]

(13) where applicable, measures to be taken for control of insect infestation or disease outbreak;

(14) any requests for variation from riparian standards, or as known, any other request for variation from standards under 11 AAC 95.235 or 11 AAC 95.240; requests for variation from riparian standards under 11 AAC 95.235 must include the following information:

(A) in Region I,

(i) a map at 1:12,000 scale or finer that clearly shows the anadromous fish waterbody and the approximate location of the requested, numbered trees;

(ii) a list of requested trees giving the species, DBH, and distance to ordinary high water mark (OHWM) of each tree;

(iii) length of reach along which the variation trees are requested;

(iv) the surface water body classification type and average channel width of the reach along which the variation trees are requested;

(v) the number of stems 12 inches DBH or greater in the riparian retention area of the reach along which the variation trees are requested; and

(vi) the percentage of stems 12 inches DBH or greater within the reach for which any variation is sought that the operator is requesting to harvest, and that were harvested under a prior variation request, if any; and

(B) in Regions II and III,

(i) a map at 1:12,000 scale or finer that clearly shows the anadromous or high value resident fish water body and the approximate location of the requested trees;

(ii) length of reach along which the variation trees are requested;

(iii) the surface water body classification type and average

channel width of the reach along which the variation trees are requested;

(iv) a description of the species and the DBH range of the trees requested for harvesting;

(v) the minimum distance from OHWM to the proposed variation harvest; and

(vi) the percentage of trees nine inches DBH or greater within the reach for which any variation is sought that the operator is requesting to harvest, and that were harvested under a prior variation request, if any; and

(15) the sum total of new road construction; and

(16) a summary of the detailed plan of operation submitted on a summary form provided by the division.

(b) For the purpose of (b)(1) of this section, a corporation must be identified by a copy of the corporation's certificate of incorporation and articles of incorporation showing the corporation's name, state of incorporation, and identities of the registered agent, president, vice president, secretary, and treasurer. A limited partnership must be identified by a copy of the limited partnership agreement, by evidence of filing of the limited partnership in the real property records as required by AS 32.11.010(a), and by the names and addresses of all general partners. A general partnership or joint venture must be identified by documentation showing the

(1) proper name of the partnership or joint venture;

(2) date that the partnership or joint venture was formed;

(3) mailing address of the partnership or joint venture;

(4) physical address of the partnership or joint venture;

(5) names and titles of persons authorized to act for the partnership or joint venture; and

(6) names and addresses of all partners or all parties to a joint venture.

(c) The period for review of a detailed plan of operations as provided for under AS 41.17.090(b) begins on the day that the area office of the division receives a completed detailed plan of operations. However, the review period will not begin if the state forester determines that the detailed plan of operations does not include the information required in (a) of this section, or the summary provided under (a)(16) of this section is not suitable for black and white duplication. Within five days of receiving the initial detailed plan of operations, the state forester will notify the operator if the detailed plan of operations is incomplete or if the summary is unsuitable for duplication.

(d) For operations conducted in Region I, the detailed plan of operations will be accepted only for those portions of the operation that the operator states will be completed by December 31 of the year for which the plan is submitted. If an operation in the detailed plan of operations is not completed by December 31 of the year for which the plan is submitted, and the operator plans to continue the operation, the detailed plan of operations must be renewed and reflect any change in or addition to the operations.

(e) For operations conducted in Region II or III, the detailed plan of operations must specify the beginning month and year covered by the plan; an approved plan will expire 12 months after the date specified. If an operation in the detailed plan of operations is not completed within that 12-month period and the operator plans to continue the previously reviewed operation, the detailed plan of operations must be renewed.
(f) Renewal of a detailed plan of operations is not subject to the review periods required in AS 41.17.090(e). To renew a detailed plan of operations, the operator shall submit a letter of intent to renew at the area office where the detailed plan of operations was originally submitted. (Eff. 6/10/93, Register 126; am 11/20/99, Register 152; am 6/24/2004, Register 170; am 6/8/2007, Register 182)

**Authority**: AS 41.17.010 AS 41.17.055 AS 41.17.080
AS 41.17.087 AS 41.17.090 AS 41.17.900

**11 AAC 95.225. Review of a detailed plan of operations.** (a) A person desiring to receive an operations summary submitted under 11 AAC 95.220(a)(16) for plans submitted during a calendar year must file a written request with the division to be placed on the mailing list for that calendar year. A mailing list expires at the end of the calendar year. A person may inspect a complete detailed plan of operations during regular business hours in the division office where the plan was submitted.
(b) A detailed plan of operation will be distributed in accordance with AS 41.17.090(d). The state forester will distribute a copy of the Detailed Plan of Operations Summary and accompanying map provided by the operator to each person on the mailing list established under (a) of this section.
(c) The state forester will consider agency comments on a detailed plan of operations only if they are timely and directly pertain to the compliance of the operation with applicable standards established by AS 41.17 or this chapter.
(d) The state forester will provide a written review of a detailed plan of operations consistent with the timelines and purposes of AS 41.17.090(e) and (f). The state forester need not consider any comments received more than 20 days after the date of filing of a detailed plan of operations, or more than five days after notice of an elevation under (e) of this section. The state forester will forward copies of all comments to the forest landowner.
(e) If the state forester determines that an agency recommendation will not be addressed in the state forester's written response to the landowner, the state forester will first notify the commenting agency. If, before the expiration of the review period under this chapter, an agency requests that a disagreement be elevated to a higher level of authority within the agency under AS 41.17.098(f), the state forester will notify the operator that the particular portion of the plan that is the subject of the disagreement may not begin until the 41st day after the plan was filed, or until the state forester renders a decision, whichever occurs first. A request for an elevation must be in writing, and must set out the factual basis for the need to elevate the disagreement. A request for an elevation, and the department's response, must be promptly served on the operator. The operator will be allowed to

participate at every step in the elevation process. (Eff. 6/10/93, Register 126)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080
AS 41.17.090 AS 41.17.098 AS 41.17.143

**11 AAC 95.230. Change in operations**. (a) An operator shall notify the state forester of a change in operations from those described in the finalized detailed plan of operations that is likely to cause significant adverse impact to fish habitat or surface water quality. Changes in operations that require agency review include:

(1) a new or reconstructed bridge, road segment, or material disposal site that crosses surface waters, abuts a riparian area, or is on unstable soils;

(2) a new or modified activity in a riparian area; or

(3) the ten acres or more increase of a cutting unit.

(b) Upon receipt of a notice of a change in operations, the division will promptly review the proposed change, either in the field or in the office, and notify the operator of the time required for complete review. The division may take up to fifteen days for its review.

(c) The state forester will coordinate the review with the other agencies. A review of a change and an agency decision made under this section will be conducted in accordance with AS 41.17.098. If the state forester determines that a change in operations is a substantial change, the operator shall revise the detailed plan of operations and submit it to the state forester for review under 11 AAC 95.220 and 11 AAC 95.225.

(d) An operator shall promptly inform the state forester when a previously unknown anadromous fish water body is discovered within an area covered by a detailed plan of operations. The state forester will review the activities to be conducted within the riparian area of that water body in accordance with (b) of this section; however, discovery of such a water body will not be considered a substantial change. Operations in the vicinity of a newly discovered anadromous water body must be consistent with other regulations of this chapter, including 11 AAC 95.265(e).

(e) In this section, "substantial change" means a change in operations of sufficient scope so as to require a full 30-day review; "substantial change" includes the inclusion of a new harvest unit and the construction of a road accessing a new area; "substantial change" does not include a change made in response to an agency request, or a change made in response to field conditions that is intended to accomplish an operation included in the detailed plan of operations. (Eff. 6/10/93, Register 126)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080
AS 41.17.090 AS 41.17.098

**11 AAC 95.235. Variation procedures.** (a) In accordance with AS 41.17.098,

the state forester will either process a request for a variation under AS 41.17.087 at the same time that the detailed plan of operations is reviewed, using the procedures set out in 11 AAC 95.220 and 11 AAC 95.225, or will process a request for variation as a change in operations using the procedures set out in 11 AAC 95.230.
(b) When requesting a variation under this section, an operator shall list any additional practices or measures that will be used.
(c) The state forester will, in the state forester's discretion, grant a variation if the variation is needed to conduct a scientific experiment designed to further the knowledge of appropriate forest management and that evaluates the effectiveness of various forest practices in achieving the objectives of AS 41.17. On or before February 1 of each year, the state forester will prepare and transmit to the Board of Forestry an annual report of all variations applied for under this section within the previous calendar year and the action taken on each application.
(d) In evaluating a request for a variation to harvest timber in a riparian retention area under AS 41.17.087(a), the state forester will consider the impact of the harvest on non-merchantable trees within the riparian retention area, and will in the state forester's discretion, condition and document the variation authorization in order to protect non-merchantable trees that are important to maintain fish habitat and water quality. (Eff. 6/10/93, Register 126; am 11/20/99, Register 152; am 6/24/2004, Register 170)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080
AS 41.17.087 AS 41.17.098

**11 AAC 95.240. Variation from requirements in areas adjoining a small streamside zone in Region I.** (a) Under AS 41.17.087(b), the department grants a general variation for activities, including timber harvest, in small streamside zones on private land in Region I. A small streamside zone is a riparian area adjacent to a Type I-A water body with a width of six and one-half feet or less as determined by actual measurement between the ordinary high water marks.
(b) The general variation granted in (a) of this section is in addition to any site-specific variation available under AS 41.17.087(a) and 11 AAC 95.235.
(c) If the state forester determines a general stream side zone variation under this section is likely to cause significant harm to fish habitat or water quality due to site specific conditions, a general variation is not available. A landowner may request a site specific variation under AS 41.17.087(a) and 11 AAC 95.235. When making a decision under this section, the state forester will give due deference to the deputy commissioner and Department of Environmental Conservation in accordance with AS 41.17.098.
(d) The following standards shall apply in a small streamside zone in Region I:
(1) an operator may not fell a tree that stands within 25 feet of the stream as measured from the ordinary high water mark;
(2) in the area between 25 feet of the stream and 66 feet of the ordinary high water marks of the stream, the operator may harvest up to

(A) 25 percent of all standing qualifying trees; and

(B) 25 percent of all downed qualifying trees within the riparian retention area adjacent to the stream; for land east of the most westerly point of Cape Suckling, the total number of qualifying trees includes all timber with a diameter of 12 inches DBH or more; for land west of the most westerly point of Cape Suckling, the total number of qualifying trees includes all timber with a diameter of eight inches DBH or more; the landowner requesting a variation under this section shall calculate the number of qualifying trees using the following method, and provide this information to the state forester:

(i) Step 1. over the reach from which variation trees are requested to be removed, identify and count all qualifying standing trees, and as a separate count, all qualifying downed trees, between the ordinary high water mark (OHWM) and 66 feet from the OHWM; for land east of the most westerly point of Cape Suckling, qualifying trees are 12 inches DBH or greater; for land west of the most westerly point of Cape Suckling, qualifying trees are 8 inches DBH or greater; when calculating qualifying trees, each streambank is considered a separate reach;

(ii) Step 2. multiply the number of qualifying trees in Step 1 by 0.25 for each category, for example, standing trees as compared to downed trees;

(iii) Step 3. within the defined reach, up to the number of trees calculated in step 2 may be felled, killed, or harvested; trees that are felled, killed, or harvested must be qualifying trees and must be more than 25 feet from the OWHM.

(3) when choosing a tree to harvest or retain under this subsection, preference should be given to retaining a tree that

(A) has the dominant crown on the streamside of the tree and is a primary source of shade to the stream;

(B) is on the windward side of the prevailing wind throw pattern and closest to the stream; and

(C) leans toward the stream channel and is a likely source of woody debris;

(4) felling, bucking, and yarding must comply with the following standards:

(A) a tree must be directionally felled away from a Type I-A water body; however, if directional felling cannot be accomplished, and topography or safety requirements indicate a need to fell across a Type I-A water body, that felling and yarding must be conducted in a manner that minimizes sedimentation of the water body and disturbance of the riparian area; felling and bucking must also be accomplished in accordance with 11 AAC 95.355(a);

(B) for cable yarding systems in which the leading edge of the log is not suspended, the leading edge of the log must extend outside the riparian area in accordance with 11 AAC 95.360;

(C) where site-specific conditions require, and where consistent with safety standards, jacking and pulling of a standing tree must be used to prevent felling a tree into the stream or damaging retained timber;

(5) the tracks or wheels of a skidder, logging shovel, or other piece of heavy equipment may not be operated within 33 feet of the streambank in accordance with 11 AAC 95.365;

(6) tree removal must be done in a way that minimizes damage to retained trees and understory vegetation within the riparian zone;

(7) use of a tailhold, corner block, or lift tree must be done in accordance with 11 AAC 95.275. (Eff. 6/10/93, Register 126; am. 11/10/99, Register 152; am EO 107, 2003, Register 166; am 6/24/2004, Register 170)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080
AS 41.17.087 AS 41.17.098

**11 AAC 95.245. Inspections.** (a) For the purposes of AS 41.17.120, the division shall coordinate agency inspections under this chapter. An agency may request that the division schedule an inspection or the division may initiate an inspection. If requested, the division shall schedule the inspection, or deny the agency's request and provide a response to the agency stating the reasons for denying the request. An agency disagreement concerning whether to schedule an inspection under this section is subject to elevation under AS 41.17.098(f).

(b) If the state forester requires a field inspection under AS 41.17.090(f), an operator shall inform the division when the site will be available for an inspection. To be available for an inspection, a site must be accessible by mechanized means to within one mile of the activity or proposed activity and, except for a winter logging operation, the site must be free of significant snow cover. For a winter logging operation the feature to be inspected must be locatable or be adequately marked.

(c) The division shall make every reasonable effort to notify the operator's representative of a pending inspection at least five days in advance of the inspection and to give the operator the opportunity to accompany state personnel during the inspection.

(d) A written forest operation inspection report shall be prepared by the forest practices forester after each inspection and must be distributed to the operator, forest landowner, timber owner, agencies, and affected coastal districts. The forest practices forester will, in the forester's discretion, provide the report to the operator before leaving the site. (Eff. 6/10/93, Register 126)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080
AS 41.17.098 AS 41.17.120 AS 44.17.010

**11 AAC 95.250. Hearings.** The department will make an electronic recording of all hearings conducted under AS 41.17.131, AS 41.17.136, AS 41.17.138, and AS 41.17.139. (Eff. 6/10/93, Register 126)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080 AS 41.17.139

**11 AAC 95.255. Corrective action**. On private forest land, state forest land, and other public land as defined in AS 41.17.950, if an operation is resulting, or is likely to result, in a degradation of water quality, notwithstanding compliance with the best management practices established in this chapter, the state forester, with due deference to the Department of Environmental Conservation, will direct the operator, forest landowner, or timber owner to correct the degradation through the use of a directive or stop work order as provided for under AS 41.17.136 and AS 41.17.138. Failure to comply with a directive or stop work order issued under this section shall subject the violator to a penalty under AS 41.17.131. (Eff. 6/10/93, Register 126)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080 AS 41.17.098

## Article 2. Riparian standards

**Section**



**11 AAC 95.260. Riparian standards.** (a) Riparian standards that apply to private land are set out in AS 41.17.116.

(b) On state land managed by the department or on other public land as defined in AS 41.17.950, a timber harvest operation within 180 feet of a non-glacial Type II-C water body where the riparian retention area under AS 41.17.118 or AS 41.17.119 is not forested shall be designed to retain forest cover necessary to maintain stream temperature. For a harvest on state land managed by the department, the state forester will determine, during review of the forest land use plan adopted under AS 38.05.112, what forest cover is necessary to maintain stream temperature. For a harvest on other public land, the state forester will determine, during review of the detailed plan of operations, whether the forest cover proposed for retention is sufficient to maintain steam temperature. In making a determination under this section, the state forester will give due deference to the deputy commissioner.

(c) A timber harvest operation on state land managed by the department must follow

(1) the riparian standard set out in AS 41.17.118(a), and

(2) applicable standards and guidelines of land use plans or forest management plans adopted under AS 38.04.065, AS 38.05.112, or AS 41.17.230.

(d) Riparian standards that apply to other public land as defined in AS 41.17.950 are set out in AS 41.17.119. (Eff. 6/10/93, Register 126; am 6/24/2004, Register 170; am 6/8/2007, Register 182)

| | | | |
|---|---|---|---|
| Authority: | AS 41.17.010 | AS 41.17.055 | AS 41.17.080 |
| | AS 41.17.115 | AS 41.17.116 | AS 41.17.118 |
| | AS 41.17.119 | | |

**11 AAC 95.265. Classification of surface water bodies**. (a) Classification of surface water bodies by an operator or by an agency must be made according to the following criteria:

(1) on private land in Region I, classification of surface waters into Type I-A, I-B, I-C or I-D must be made in accordance with AS 41.17.950(31) – (34) using the procedures established in this section; any surface waters that do not meet the criteria set out in AS 41.17.950(31) – (34) do not have a riparian area, within the meaning given the term in AS 41.17.950, but are subject to surface water quality protection best management practices in accordance with this chapter;

(2) on private land in Region II, classification of surface waters into Type II-A, II-B, II-C, or II-D must be made in accordance with AS 41.17.950 (35)-(38) using the procedures established in this section; any surface waters that do not meet the criteria set out in AS 41.17.950(35)-(38) do not have a riparian area, within the meaning given the term in AS 41.17.950, but are subject to surface water quality protection best management practices in accordance with this chapter;

(3) on private land in Region III, classification of surface waters into Type III-A, III-B, or III-C must be made in accordance with AS 41.17.950(39) – (41) using the procedures established in this section; any surface waters that do not meet the criteria set out in AS 41.17.950(31) – (33) do not have a riparian area, within the meaning given this term in AS 41.17.950, but are subject to surface water quality protection best management practices in accordance with this chapter;

(4) on other public land and on state land managed by the department in Region I, classification of surface waters must indicate whether the surface waters are anadromous or contain high value resident fish under AS 41.17.950;

(5) on other public land and on state land managed by the department in Regions II and III, classification of surface waters into Type II-A, II-B, II-C, II-D, III-A, III-B, or III-C must be made in accordance with AS 41.17.950 (35) – (41).

(b) A stream may have more than one water body classification along its length and may also have a different water body classification on opposite banks, depending on stream bank characteristics.

(c) An operator's classification of a water body type may be verified by the agencies before or during the review of a detailed plan of operations, and is subject to a field inspection under AS 41.17.090(f). Except as provided in AS 41.17.090(e), the division will change the water body classification made by an operator if the division determines that a water body was incorrectly classified. For private land in Region I, the division will base its decision on evidence or lack of evidence of anadromous fish at or upstream of the area proposed for reclassification using procedures in (g) of this section and the criteria set out in AS 41.17.950(31) – (34). In Regions II and III, the division will base its decision on the criteria set out in AS 41.17.950(35) – (41) and the evidence or lack of evidence of anadromous fish or high value resident fish at or upstream of the area proposed for reclassification.

(d) An operator or the division may request the deputy commissioner to conduct a field review to document the presence or absence of anadromous fish, and in Regions II and III, the presence or absence of high value resident fish. The recommended practice is to schedule a field review at a time when anadromous fish or evidence of anadromous fish are likely to be present and the site is accessible. This subsection provides an optional procedure for an operator and does not extend the time schedule for field inspections under AS 41.17.090(f).

(e) A water body that was incorrectly classified at the time of submission of the detailed plan of operations, and that has standing timber remaining in the riparian area at the time of subsequent reclassification under (c) of this section, is, with respect to any remaining standing timber, subject to the appropriate riparian standard under AS 41.17.116 -- AS 41.17.119, and this section.

(f) Except for an estuarine area at the mouth of a Type I-A, II-A, II-B, II-C, or II-D water body, salt water bodies are not subject to AS 41.17.115 -- AS 41.17.119.

(g) The following provisions and Table A of this subsection apply to classification of an anadromous fish stream on private land in Region I:

(1) beginning at the mouth of an anadromous fish stream and proceeding upstream, a stream in which all the required elements of a Type I-A stream as defined in AS 41.17.950(31) predominate remains a Type I-A stream up to the point of physical blockage, or where any required element of a Type I-A stream ceases to predominate for the remainder of the stream, whichever occurs first; at that point, the stream becomes a Type I-B, I-C or I-D stream as the case may be;

(2) a Type I-B stream may become, in an upstream segment, a Type I-A stream if the required elements of a Type I-A stream are present in that upstream segment;

(3) a stream may not be classified a Type I-A or I-B upstream from the point of physical blockage;

(4) an operator may presume that a physical blockage occurs at any point or stream reach that meets one or more of the criteria in Table A: Anadromous

Fish Blockage Table; however, the agencies and operators may not consider a physical blockage to occur if evidence or presence of anadromous fish is found above that point or reach of the stream, in which case it would be reclassified using the procedures and standards in this section;

(5) to determine fall height under (4) of this subsection, measure the additive height of multiple falls only if resting pools do not occur between them; otherwise, the falls are separate features; measurements are made from the jump pool surface to the water surface above the fall, both at ordinary high water;

(6) notwithstanding (4) of this subsection, in stream reaches that provide rearing habitat for juvenile anadromous fish, but not spawning habitat for adult anadromous fish, an operator may presume a blockage if any individual falls is greater than three feet, measured as described in (5) of this subsection;

(7) a beaver dam is not presumed to constitute a blockage.

**TABLE A:**
**Anadromous Fish Blockage**

| | **Species Requirements (in feet)** | | | | |
|---|---|---|---|---|---|
| Criterion | Coho | Steelhead | Sockeye | Chinook | Pink/Chum |
| **Maximum Fall Height.** A blockage may be presumed if fall height in feet exceeds: | 11 | 13 | 10 | 11 | a) 4 with deep jump pool<br>b) 3 without pool |
| **Pool depth.** A blockage may be presumed if the unobstructed water column depth in feet within the pool is less than: | 1.25 X jump height, except that no minimum pool depth exists for falls as follows:<br>a) less than 4 in the case of coho and steelhead; and<br>b) less than 2 in the case of other anadromous fish species. | | | | |
| **Steep channel.** A blockage may be presumed at the upper end of the reach if channel steepness in feet is equal to or greater than the following without resting places for fish: | ≥225 at 12 percent gradient<br>≥100 at 16 percent gradient<br>≥50 at 20 percent gradient<br>≥25 at 24 percent gradient | | | | ≥100 at 9 percent gradient |

(h) In Region II, an operator may presume that a physical blockage occurs at any point or stream reach that meets one or more of the criteria in Table A, set out in (g) of this section. However, if evidence or the presence of anadromous fish or high value resident fish is found above that point or reach of the stream,

(1) an agency or operator may not consider a physical blockage to occur; and

(2) the stream will be reclassified using the criteria set out in AS 41.17.950(35)-(38). (Eff. 6/10/93, Register 126; am 11/20/99, Register 152; am 6/24/2004, Register 170; am 6/8/2007, Register 182)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080

| | | |
|---|---|---|
| AS 41.17.115 | AS 41.17.116 | AS 41.17.117 |
| AS 41.17.118 | AS 41.17.119 | AS 41.17.950 |

**11 AAC 95.270. Designation and marking of a riparian retention area**. (a) Where timber retention is required and where the required riparian retention area abuts or is within a harvest unit, an operator shall mark the limits of the riparian retention area before harvest begins. On private land in Region I, marking of riparian retention areas along Type I-C and I-D water bodies is not required.
(b) The following standards apply for marking a riparian retention area that abuts or is within a harvest unit:

(1) each marking must be visible from adjacent markings;

(2) marking must be by flagging, painting, or another identification system.

(c) A water body or its timber retention area must be marked while the area is free of snow cover that would prevent accurate marking, unless a water body is large, incised, or otherwise identifiable when under snow cover.
(d) A tree on the boundary of a riparian retention area is within the riparian retention area if over 50 percent of the diameter of the bole of the tree is within the riparian retention area. For the purposes of this section, a diameter of the bole of the tree is measured at four and one-half feet above ground level or at the top of the root collar, whichever is higher. (Eff. 6/10/93, Register 126; am 6/24/2004, Register 170)

| | | | | |
|---|---|---|---|---|
| **Authority:** | AS 41.17.010 | AS 41.17.055 | AS 41.17.080 | AS 41.17.115 |
| | AS 41.17.116 | AS 41.17.118 | AS 41.17.119 | |

**11 AAC 95.275. Uses within a riparian area.** (a) The following operations are allowed within a riparian area without the necessity of obtaining a variation under AS 41.17.087:

(1) road building and associated activities performed in accordance with 11 AAC 95.285(b);

(2) a water body crossing built in accordance with 11 AAC 95.300;

(3) felling and removal of hazardous trees along roadways as required by state or federal law;

(4) locating material extraction sites in braided, glacial floodplains in accordance with 11 AAC 95.325;

(5) installation of blocks, or similar devices on a tree required for retention under this chapter if the device is installed to minimize damage to the tree;

(6) the use, as lift trees or tail holds, of trees required for retention under this chapter;

(7) the hanging of rigging through the riparian area if necessary to be consistent with operator safety requirements and to have a clear line of sight and working area for the rigging;

(8) in the case of a riparian area on land identified in AS 41.17.118 and

41.17.119 only, yarding corridors and other logging methods that do not cause a significant adverse impact to the riparian habitat.

(b) The operations identified in (a)(1), (2), and (4) of this section must be identified in the detailed plan of operations and comply with AS 41.17 and this chapter.

(c) The felling of trees identified in (a)(3) of this section need not be identified in the detailed plan of operations or comply with AS 41.17 and this chapter.

(d) Between 50 feet and 100 feet from a Type II-D water body, harvest may occur, but may not create flow paths or ruts that could channelize sheet flow or introduce sediment into the water body.

(e) On state and other public land, a timber harvest along a non-glacial Type II-C water body will be designed in consultation with the deputy commissioner, to identify sites where stream temperature is a concern and where the buffer is not forested. On those sites, the timber harvest will be designed to maintain forest cover within 180 feet from the ordinary high water mark (OHWM), where needed to retain shade and maintain stream temperature.

(f) Within the portion of a Type III-B water body riparian area under AS 41.17.116(c)(2), AS 41.17.118(a)(3)(B), and AS 41.17.119(3) where harvesting is allowed,

(1) retention trees must include, to the extent feasible, trees with high value for wildlife habitat, including snags, forked trees, and trees with multiple stems;

(2) following procedures in 11 AAC 95.355(a) - (d), harvest trees may be felled into the no-harvest zone of the riparian area if necessary to minimize damage to residual trees;

(3) trees felled into the no-harvest zone may be topped to the merchantable specification and the tops left within the no-harvest zone; tops left shall be treated in accordance with 11 AAC 95.370(d) - (e) to reduce risk of insect infestation;

(4) each harvest tree shall be high- and low-marked with paint; and

(5) retention trees must be well-dispersed throughout the riparian area where harvesting is allowed.

(g) Activities described in this section that are conducted within a riparian area must be done in compliance with the slope stability standards of 11 AAC 95.280(d).

(Eff. 6/10/93, Register 126; am 11/20/99, Register 152; am 6/24/2004, Register 170; am 6/8/2007, Register 182)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080
AS 41.17.087 AS 41.17.115 AS 41.17.118
AS 41.17.119

**11 AAC 95.280. Slope stability standards.** (a) The slope stability standards in this section apply to the following areas of private land in Region I:

(1) the area within 100 feet of an ordinary high water mark of a Type I-A, I-B, or I-C water body or to the break of the slope to that water body,

whichever occurs first; and

(2) the area within 50 feet of an ordinary high water mark of a Type I-D water body or to the break of the slope, whichever occurs first.

(b) In Region I, on all state lands and on all other public lands, the slope stability standards in this section apply within 100 feet of an ordinary high water mark of an anadromous or high value resident fish water body, or a water body with a gradient of 12 percent or less that is tributary to an anadromous or high value resident fish water body, and within 50 feet of all other tributaries to anadromous and high value resident fish water bodies.

(c) The break of a slope is the point where the slope extending up from the top of the stream bank changes to the lower angle slope of the adjacent upland. For purposes of measurement, the break of a slope is where the degree of slope is reduced by 20 percent or more when measured away from the stream.

(d) An operator shall adhere to the following standards when conducting timber harvest activity in an area identified in (a) and (b) of this section:

(1) avoid constructing a road that will undercut the toe of a slope that has a high risk of slope failure;

(2) within the riparian area of streams not subject to AS 41.17.116(a)(3)(B) or 41.17.116 (a)(4)(B), in the operator's discretion, leave low-value timber where prudent;

(3) achieve full or partial suspension in yarding operations;

(4) fall timber away from streams in V-notches; and

(5) avoid sidecasting of displaced soil from road construction to the maximum extent feasible. (Eff. 6/10/93, Register 126; am 11/20/99, Register 152; am 6/24/2004, Register 170; am 6/8/2007, Register 182)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080 AS 41.17.115 AS 41.17.116 AS 41.17.118 AS 41.17.119

## Article 3. Road construction

**Section**



**11 AAC 95.285. Road location**. (a) This subsection sets out the general

standards for determining the location of a new road. An operator shall

(1) minimize the amount of road construction;

(2) avoid isolating a patch of timber that may require unnecessary additional road construction;

(3) where feasible, use an existing road;

(4) where feasible, locate a road to fit the topography and to minimize alterations to natural features;

(5) where feasible, locate all-season roads and associated activities to avoid marshes or non-forested muskegs;

(6) minimize the number of stream crossings;

(7) where feasible, cross a stream at a right angle to the stream channel;

(8) where feasible, locate a road away from or upstream of a meander bend or a recently abandoned channel; and

(9) where feasible, avoid crossing deep gullies where fine textured soils such as clay or ash soils exist.

(b) A road may not be located in a riparian area except where access is needed to a water body crossing, or where there is no feasible alternative. A stream crossing or a road in any riparian area must be designed and located to minimize significant adverse effects on fish habitat and on water quality. (Eff. 6/10/93, Register 126)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080 AS 41.17.115

**11 AAC 95.290. Road construction.** (a) When constructing a forest road on a slope, an operator, where feasible, shall avoid locating a road on a slope greater than 67 percent, on an unstable slope, or in a slide-prone area. If avoiding that slope or area is not feasible, site-specific measures must be planned to address slope instability due to road construction. The measures must be approved by the division and must meet the requirements of (b) of this section.

(b) If constructing a road on a slope greater than 67 percent, on an unstable slope, or in a slide-prone area is necessary, an operator

(1) may not bury any of the following material except as puncheon across swampy ground or for culvert protection:

(A) a log chunk of more than five cubic feet in volume or a loose stump, in the load-bearing portion of a road;

(B) any significant amount of organic debris within the load-bearing portion of a road;

(C) excessive accumulation of debris or slash in the load-bearing portion of a road fill;

(2) shall balance cuts and fills so that as much of the excavated material as is feasible is deposited in the roadway fill section; however, fill material may not be used if it is unstable, fine textured, or prone to mass wasting, and cuts must be minimized where fine textured soils are known or encountered; and

(3) may not conduct excavation and blasting activities during saturated soil conditions if mass wasting is likely to result and cause degradation of surface

or standing water quality.

(c) To prevent or minimize sedimentation, an operator shall treat unstable soils with effective and appropriate erosion control measures such as grass seeding, erosion control mats, or end-hauling of materials.

(d) An operator shall use end-hauling and full-bench construction techniques if mass wasting from overloading on an unstable slope or erosion of sidecast material is likely to occur and cause degradation of surface or standing water quality.

(e) Notwithstanding the provisions of 11 AAC 95.355, when constructing a forest road, an operator shall, where feasible, fell trees away from fish-bearing surface waters and from standing waters, and shall fell trees away from other surface where feasible and if necessary to avoid degradation of water quality. An operator shall comply with the following standards when constructing a forest road:

(1) an operator may not fell a tree into anadromous fish waters catalogued under AS 41.14.870 without prior written approval of the deputy commissioner;

(2) if a tree is felled into fish-bearing waters not catalogued under AS 41.14.870, the operator shall remove the limbs and other small debris within 48 hours, and shall remove the bole as soon as the necessary equipment is at the site;

(3) if a tree is felled into nonfish-bearing surface waters and standing waters, the operator shall remove debris at the earliest feasible time when necessary to avoid degradation of water quality.

(f) A winter road must be constructed to avoid degradation of water quality and where feasible the alteration of drainage systems.

(g) If constructing a winter road,

(1) the operator shall, where feasible, avoid placing fill material other than snow or ice on non-forested muskegs; if fill material other than snow or ice is required to cross a non-forested muskeg, the operator shall install culverts or other drainage structures as necessary to maintain natural hydrologic flow through muskeg vegetation;

(2) the operator shall complete construction of across non-forested muskegs when snow conditions, ground frost conditions, or a combination of those conditions will support construction equipment; disturbance to muskeg vegetation must be limited to that necessary to provide a level running surface, and may not alter hydrologic flow or cause erosion and sedimentation.

(3) where the road is within 50 feet of a stream, or slopes continuously toward a stream crossing, the operator shall

(A) prevent the introduction of sediment or other debris into surface waters; and

(B) maintain the integrity of the surface organic mat, unless the state forester

(i) determines that avoiding disturbance of the organic mat is not feasible; and

(ii) authorizes the disturbance and determines techniques, if necessary, to prevent sedimentation; and

(4) the operator shall close a temporary winter road in accordance with 11 AAC 95.320 when use of the road is concluded.

(h) On state and other public land, winter roads must be designed and used so as to protect the roadbed from significant rutting and ground disturbance. The following practices are required where feasible:

(1) if the surface organic mat is removed or excessively reduced over thaw-unstable permafrost terrain, that area must be stabilized by recovering that area with insulating material, re-vegetating, water-barring the area, or using other techniques demonstrated to be effective;

(2) soil cuts or fills in thaw-unstable permafrost terrain must be avoided to the extent feasible; all cuts must be stabilized;

(3) routes must be selected that are less likely to be used or damaged by highway vehicle traffic when the soil is not frozen or snow covered.

(i) The division may physically block or otherwise seasonally prohibit vehicle traffic on winter roads if necessary to prevent significant roadbed degradation or surface water siltation.

(j) Spoil, waste, and overburden that is generated during construction and not sidecasted shall be deposited in a suitable upland site stabilized by effective and appropriate erosion control measures. Disposal must also meet the standards set out in 11 AAC 95.325, 11 AAC 95.815, and 18 AAC 60.

(k) Where feasible, the running surface of a road must use material that will minimize erosion of the road surface and prevent degradation of water quality.

(*l*) A person may not operate construction equipment or machinery in

(1) an anadromous fish water catalogued under AS 41.14.870 without written approval of the deputy commissioner, or

(2) any other surface waters, without prior notice to the division. (Eff. 6/10/93, Register 126; am 6/24/2004, Register 170; am 6/8/2007, Register 182 )

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.080 AS 41.17.098

**Editor's note:** As of Register 166 (July 2003), and acting under AS 44.62.125(b)(6), the regulations attorney made technical changes to 11 AAC 95.290, to reflect Executive Order 107 (2003). Executive Order 107 transferred functions related to protection of fish habitat in rivers, lakes, and streams from the Department of Fish and Game to the Department of Natural Resources.

**11 AAC 95.295. Road drainage.** (a) This section sets out the drainage standards that apply to a forest road.

(b) An operator shall minimize the erosion of a road bed, cut bank, and fill slope through the use of cross drains, ditches, relief culverts, bridges, water bars, diversion ditches, or other structures demonstrated to be effective. These drainage structures shall be installed at all natural drainages and must be spaced at least as frequently as set out in the following table:

**SPACING OF DRAINAGE STRUCTURES (in feet)**

| PERCENT OF GRADE | REGION I | REGION II AND III |
|---|---|---|
| 0 to 2 | Meet other standards of this section | |
| 2 to 7 | 1,000 | 1,500 |
| 8 to 15 | 800 | 1,000 |
| Over 15 | 600 | 800 |

More frequent drainage structure spacing or other drainage improvements must be used where site-specific conditions of peak flows or soil instability makes additional drainage structures necessary to prevent degradation of standing or surface water quality. Less frequent drainage spacing is permissible if the parent material of the roadway is not erodible, such as rock or gravel; the topography or other local conditions are not conducive to erosion; or the degradation of surface or standing waters is not likely to occur.

(c) During road construction, an operator shall install the appropriate ditches, culverts, cross drains, drainage dips, water bars, and diversion ditches when the natural drainage is crossed with the roadbed material.

(d) A road shall be outsloped or ditched on the uphill side.

(e) In the event an incomplete road is left over the winter season or other extended period, an operator shall, before suspending operations, provide adequate interim drainage by outsloping or cross draining the road, or by the use of water bars and diversion ditches.

(f) An operator shall to the extent feasible direct ditchline water away from unstable soils and surface waters, and onto vegetated areas.

(g) To minimize sedimentation of standing and surface waters, marshes, and non-forested muskegs caused by drainage from road surfaces and ditches, an operator shall use measures such as settling basins, cross drains, or vegetated areas.

(h) A relief culvert installed on a forest road must be at least 12 inches in diameter or the equivalent capacity, and be installed sloping toward the downslope edge of the road at a minimum gradient of three percent.

(i) A cross drain, relief culvert, or diversion ditch may not discharge onto erodible soil or over fill slopes unless adequate outfall protection is provided and slope stability is ensured.

(j) A drainage structure must also comply with the directional and placement requirements of 11 AAC 95.305. (Eff. 6/10/93, Register 126; am 6/24/2004, Register 170)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080

**11 AAC 95.300. Bridge standards.** (a) An operator shall install a bridge on a

forest road according to the following standards:

(1) a temporary bridge and the adjacent roadway must be constructed to pass or withstand the 25 year flood without damage; a permanent bridge and the adjacent roadway must be constructed to pass or withstand the 50 year flood without damage; any adjustment to these design standards must be determined in the field considering the characteristics of the drainage and stream crossing, the design life of the bridge, the importance of downstream resources, the type of construction techniques, and the likelihood of bridge failure during flood; an operator shall, as necessary, minimize potential flood damage to the structure and to downstream water quality and fish habitat by installing relief culverts through approach roads or by other means;

(2) one end of each new permanent log or wood bridge must be firmly anchored;

(3) an earth embankment constructed for use as a bridge approach must be protected from erosion by using planted or seeded ground cover, bulkheads, rock riprap, retaining walls, or other equally effective means;

(4) on a rock-decked bridge, curbs must be installed to contain road surface material, and a filter fabric must be laid underneath the material to prevent it from falling within the ordinary high water marks of the water body;

(5) a snow ramp or ice bridge must be constructed only of snow, ice, and cribbing, and must be largely free of soil and organic mat; it must be constructed to go out with natural ice breakup, or it must be breached and the cribbing removed when feasible before breakup to protect downstream structures, water quality, and fish habitat;

(6) a bridge must be installed to provide fish passage in accordance with AS 41.14.840;

(7) in deep V-notches or in drainages where a culvert may require substantial fill, a bridge is the preferred crossing structure, if feasible;

(8) a bridge must be installed in such a way as to minimize disturbance to the bed and banks of a stream.

(b) In addition to the requirements of (a) of this section, when installing a new bridge or replacing an existing bridge on a forest road that crosses anadromous fish waters, the installation must be in accordance with the standards set out in (c) of this section. In anadromous fish waters catalogued under AS 41.14.870, an operator may not cross the water body with equipment, install a bridge or conduct excavation for bridges, place sills or abutments, or place stringers or girders within the ordinary high-water marks without prior written approval from the deputy commissioner. If prior written approval is required by the deputy commissioner under AS 41.14.870, an operator shall comply with the deputy commissioner's requirements instead of the standards of (c) of this section.

(c) When installing a bridge over anadromous waters that have not been catalogued under AS 41.14.870, an operator shall:

(1) locate a bridge where the banks are stable;

(2) locate a bridge on a straight reach of stream;

(3) locate a bridge where the bank and approach characteristics are suitable;

(4) schedule bridge building activity to occur during a period that will avoid or reduce adverse impact on fish; and

(5) where feasible, avoid the use of center supports.

(d) An operator may not narrow an anadromous stream between its ordinary high water marks.

(e) For water body types in Regions II and III, a crossing may be made on natural ice. Natural ice thickness may be augmented if site-specific conditions, including water depth, are sufficient to protect fish habitat. In determining whether conditions are sufficient to protect fish habitat, the state forester will consider whether augmented ice thickness is likely to

(1) cause freezedown into gravels used for spawning or fish overwintering habitat;

(2) cause bed scouring that disturbs gravels used for fish spawning or fish overwintering habitat;

(3) excessively reduce the quality or volume of fish overwintering habitat; or

(4) adversely alter stream flow patterns above or below the crossing.

(f) In this section, "augmentation"

(1) means a technique to increase the freezing depth of natural ice; and

(2) includes any of the following:

(A) adding water or ice to the surface;

(B) removing snow. (Eff. 6/10/93, Register 126; Register 166; am 6/24/2004, Register 170; am 6/8/2007; Register 182)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080 AS 41.17.098

**11 AAC 95.305. Culverts and other water crossing provisions.** (a) An operator shall install a culvert on a forest road according to the following standards:

(1) a temporary culvert and the adjacent roadway must be constructed to pass or withstand the 25 year flood without damage; a permanent culvert and the adjacent roadway must be constructed to pass or withstand the 50 year flood without damage; any adjustment to these design standards must be determined in the field considering the characteristics of the drainage, the design life of the road, the importance of downstream resources, the type of construction techniques, and the likelihood of culvert or road failure;

(2) the size of the culvert must be determined in accordance with hydrologic engineering principles; a culvert may not be installed that is smaller than 12 inches in diameter or equivalent capacity; where culvert icing conditions are to be expected, other drainage designs such as open flumes buried in the road surface should be considered instead of culverts;

(3) for fish-bearing waters, the entrance, to the extent possible, and exit of a stream culvert must match the natural course of a stream channel; a culvert may not be perched at its inlet or outlet.

(4) a culvert must terminate on material that will not readily erode, such as riprap, the original streambed if stable, or other suitable materials;

(5) a change may not be made in the course or channel of anadromous fish waters catalogued under AS 41.14.870 without giving notice to the division and receiving written approval of the deputy commissioner; a change may not be made in the course or channel of other waters that are significant for protection of downstream water quality, without prior notice to the division;

(6) when a flume, downspout, downfall culvert, or similar structure is used to protect fill slopes or to return water to its natural course, the discharge point shall be protected from erosion by

(A) reducing the velocity of the water;

(B) using rock spillways, riprap, or splash plates; or

(C) using equally effective methods or structures;

(7) for nonfish-bearing waters, the area of a stream bed from a culvert inlet to 50 feet upstream from the culvert inlet must be cleared of mobile slash or debris that may be expected to plug a culvert;

(8) to prevent or minimize sedimentation, the entrance of a relief culvert must have adequate and appropriate catch basins, consistent with physical features of the ground; a headwall must be used to direct ditch water into cross drains;

(9) a culvert must be of sufficient length to prevent road overlay materials from blocking an end of the culvert.

(b) A properly prepared and maintained ford may be used for an equipment crossing during a period of low water. If the ford crosses anadromous fish waters catalogued under AS 41.14.870, written approval of the deputy commissioner is required. For other surface waters, prior notice to the division is required. A ford must cross a stream substantially perpendicular to the stream flow, and the approaches must be properly ballasted or otherwise stabilized to avoid sedimentation. Ford construction must comply with AS 41.14.840. (Eff. 6/10/93, Register 126; am EO 107, 2003, Register 166; am 6/24/04, Register 170)

Authority: AS 41.17.010 AS 41.17.080 AS 41.17.055 AS 41.17.098

**11 AAC 95.315. Road maintenance**. (a) For purposes of the road maintenance requirements of this section, a landing is considered part of a road.

(b) An operator shall conduct the following maintenance on an active road:

(1) keep culverts, flumes, and ditches functional;

(2) if a settling basin is used, keep an adequate reserve volume; sediment removed from a settling basin during maintenance operations must be deposited in a location where it is not likely to enter nearby surface waters;

(3) perform road surface maintenance as necessary to minimize erosion of the surface and the subgrade;

(4) during operations, keep the road surface crowned or outsloped, and keep the downhill side of the road free from berms except those intentionally constructed for protection of fill;

(5) when grading on a nonrock-decked bridge, minimize the deposit of road

surface material on the bridge surface; and

(6) when grading on a rock-decked bridge, avoid pushing material over the rub rails or through gaps in the bridge surface.

(c) An operator or forest landowner shall conduct the following maintenance on an inactive road:

(1) as soon as feasible following termination of active use, keep ditches and drainage structures maintained as necessary to assure water flow and fish passage;

(2) keep the road surface crowned, outsloped, water barred, or otherwise left in a condition not conducive to erosion; and

(3) except as provided in (d) of this section, keep ditches and drainage structures clear and in good repair.

(d) An operator or forest landowner is not subject to the penalties or liable for the monetary damages under AS 41.17 for any damage occurring from a condition brought about by public use of a road, unless an operator or forest landowner fails to make repairs under a directive of the division.

(e) If necessary to prevent significant degradation of surface water quality or fish habitat, the division will, in its discretion, require an operator or forest landowner to perform the following activities:

(1) install additional or larger culverts or other drainage improvements as determined necessary by the division;

(2) provide additional road maintenance;

(3) close an inadequately maintained portion of the road system in accordance with 11 AAC 95.320; and

(4) rehabilitate unstable or erodible exposed soils by a suitable method to minimize siltation of surface waters.

(f) Winter roads must be maintained as follows:

(1) winter roads must be maintained to provide a frozen running surface that will support logging vehicle traffic; during thaw periods or spring breakup, an operator shall suspend or manage road use as necessary to minimize erosion of soils and organic material, and to minimize significant impacts to non-forested muskeg vegetation;

(2) before spring breakup, an operator shall perform maintenance activities to reduce meltwater runoff and erosion of soils and organic material; those maintenance activities may include creating runoff breaks in snow berms, use of slash debris on road surfaces, water bars, or other techniques demonstrated to be effective. (Eff. 6/10/93, Register 126; am 6/8/2007, Register 182)

**Authority:** AS 41.17.010 AS 41.17.080 AS 41.17.055

**11 AAC 95.320. Road closure.** (a) For purposes of the road closure requirements of this section, a landing is considered part of a road.

(b) A closed road is exempt from maintenance under 11 AAC 95.315. Except as provided in (f) of this section, a road is closed when the following activities have all been completed:

(1) the road is outsloped or water barred as directed by the division or is otherwise left in a condition suitable to control erosion;

(2) ditches are left in a condition suitable to reduce erosion;

(3) in areas accessible to highway vehicles, the road is blocked so that a highway vehicle cannot pass the point of blockage;

(4) bridges, culverts, and fills are removed from surface waters, unless the division determines that other measures would provide adequate protection; bridge, culvert, or fill removal must be completed in accordance with (c) of this section.

(c) Bridge, culvert, or fill removal under this section must be completed as follows:

(1) in fish-bearing waters, bridge, culvert, and fill material must be completely removed from the natural streambed and from within the ordinary high waters marks, except where removal would cause adverse impacts to water quality or fish habitat;

(2) after culvert removal is completed, the walls of the remaining trench must be sloped to the angle of repose or otherwise permanently stabilized to prevent erosion of the walls and siltation of surface waters;

(3) surplus fill material and bridge stringers must be deposited in a location where they are not likely to re-enter the stream;

(4) bridge, culvert, and fill removal must be conducted in accordance with AS 41.14.870.

(d) At the conclusion of temporary winter road use, the operator shall close roads as necessary to avoid degradation of water quality and significant erosion of soils and organic material. Techniques for closing temporary winter roads may include creating runoff breaks in snow berms, using slash debris on road surfaces, installing water bars, or using other techniques demonstrated to be effective.

(e) If degradation of water quality occurs due to erosion from a closed road, the forest landowner, the operator, or the person responsible for creating the condition shall correct the problem.

(f) A road is closed if it was closed to highway vehicles by a permanent barrier before 6/10/93. (Eff. 6/10/93, Register 126; Register 166; am 6/8/2007, Register 182)

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.080
AS 41.17.098

**11 AAC 95.325. Material extraction and disposal sites**. (a) If feasible, an operator must verify that suitable material is present at a proposed extraction site before stripping the entire site of surface soils. A material extraction site must be located in an area

(1) that is outside surface waters, standing waters, and marshes;

(2) that is outside non-forested muskegs, except with prior notice to the division;

(3) with a low risk of siltation to surface water;

(4) where the risk of causing significant harm to fish habitat through soil erosion and mass wasting is minimal;

(5) where there is adequate and appropriate sediment filtering vegetation or equivalent treatment;

(6) that is outside a riparian area unless inside a riparian area is authorized by the division; a material extraction site located in a braided, glacial flood plain may be subject to AS 41.14; and

(7) that will not cause hydrologic changes such as dewatering a stream.

(b) An operator shall locate an area to deposit material extraction site overburden and end hauling material

(1) that is outside surface waters, standing waters, marshes, and non-forested muskegs;

(2) with a low risk of siltation to surface water;

(3) where the risk of causing significant harm to fish habitat through soil erosion and mass wasting is minimal;

(4) where there is adequate and appropriate sediment filtering vegetation or equivalent treatment; and

(5) that is outside a riparian area.

(c) During the construction and use of a material extraction site or a soil disposal site, runoff water must either be diverted onto the forest floor or intercepted and passed through one or more settling basins. When a settling basin is used, it must be maintained to have an adequate reserve volume. Sediment removed from a settling basin during a maintenance operation must be deposited in a location where it is not likely to enter any nearby surface waters.

(d) An operator shall rehabilitate a material extraction site or a soil disposal site after the material source is exhausted or abandoned, or operations at the disposal site are completed. Within the first growing season after abandonment of an extraction site or completion of disposal operations, an operator shall

(1) remove and place in a stable location all material that has potential for entering surface or standing waters, or that would prevent reforestation of an otherwise plantable area; and

(2) where necessary to prevent erosion, stabilize a disposal site and all exposed erodible soils by

(A) revegetation with grass, clover, ground cover, or, if possible, native ground cover;

(B) compacting, rip rapping, water barring, benching, or mulching; or

(C) other means required by the division.

(e) If degradation of water quality occurs due to erosion from an abandoned material extraction or disposal site, the forest landowner, the operator, or the person responsible for creating the condition, must correct the problem. (Eff. 6/10/93, Register 126; am 6/24/2004, Register 170)

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.080

**11 AAC 95.330. Rehabilitation after mass wasting**. (a) Where mass wasting is caused by operations, the operator shall, to the extent feasible, take effective and appropriate measures to stabilize the slide path and all associated exposed soils, such as grass seeding, erosion control mats, excavation of the head wall to the angle of repose, placement of ballast to control mass wasting, or other effective slope stabilization method.
(b) The division will, in its discretion, require an operator to remove debris from surface waters impacted by mass wasting, to the degree necessary to restore water quality or fish habitat.
(c) Ditchline water must be directed away from mass wasting and into vegetated areas. (Eff. 6/10/93, Register 126)

Authority: AS 41.17.010 AS 41.17.080 AS 41.17.055

**11 AAC 95.335. Blasting standards.** (a) A person may not discharge an explosive in the following areas without first obtaining a variation under 11 AAC 95.235:

(1) Type I-A or Type I-B stream riparian areas in Region I;
(2) within all riparian areas in Region II or III.

(b) During blasting, an operator shall minimize the amount of flyrock materials deposited into fish-bearing waters. (Eff. 6/10/93, Register 126; am 6/24/04, Register 170)

Authority: AS 41.17.010 AS 41.17.080

## Article 4. Timber harvesting

**Section**

**11 AAC 95.340. Harvest unit planning and design.** (a) A logging system must be appropriate for the terrain, soils, and timber type so that yarding or skidding can be accomplished in compliance with AS 41.17 and this chapter.
(b) A harvest unit must be designed so that felling, bucking, yarding, skidding, and reforestation can be accomplished in compliance with AS 41.17 and this chapter.
(c) On state and municipal forest land, an operator conducting timber harvest, road construction, or a related activity shall, where feasible, retain a buffer of not less than 330 feet in radius around each bald eagle nesting tree. (Eff. 6/10/93, Register 126)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080

**11 AAC 95.345. Landing location, construction, and operation**. (a) A landing must be located, constructed, and operated in a manner that

(1) avoids surface and standing waters, except when frozen;

(2) minimizes the use of marshes and non-forested muskegs, except when frozen;

(3) prevents logs and vegetative debris from entering surface and standing waters; and

(4) minimizes the sedimentation of surface and standing waters.

(b) An operator shall locate and construct a landing according to the following standards:

(1) when choosing the site of a landing, an operator shall consider the effects of the landing location and provide for a logging layout that will reduce the overall adverse effects of the operation;

(2) the design of a landing must minimize the need for sidecasting or fill;

(3) a landing must be no larger than necessary for safe operation of the equipment and decking of logs;

(4) where slopes have a grade greater than 67 percent, are unstable, or are in a slide-prone area, fill material used in construction of a landing must be free from loose stumps and excessive accumulations of slash, and must be mechanically compacted in layers if necessary to prevent soil erosion and mass wasting;

(5) a truck road, a skid trail, or a fire trail must be outsloped or cross drained uphill of the landing and the water diverted onto the forest floor away from the toe of any landing fill;

(6) a landing must be sloped, water barred, ditched or otherwise constructed and maintained to minimize accumulation of water on the landing; and

(7) any excavated material from the construction of a landing may not be placed where it is likely to result in degradation of surface water quality.

(c) Slash may not be buried in any portion of a landing during landing cleanup operations.
(d) For purposes of this chapter, a helicopter drop zone is considered a landing.

(Eff. 6/10/93, Register 126; am 6/8/2007; Register 182)

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.080

**11 AAC 95.350. Bank integrity.** (a) To maintain bank integrity, an operator shall minimize disturbance of residual trees, brush, and similar understory vegetation adjacent to surface and standing waters.
(b) An operator shall, where feasible, avoid disturbing roots, stumps, and deadfalls embedded in the bed or bank of surface waters, and standing waters larger than one-half acre.
(c) In a riparian area, an operator shall, where feasible and necessary, leave high stumps to prevent felled and bucked timber from entering surface waters.
(d) The division will, in its discretion, require stabilization, to the extent feasible, of disturbed banks to prevent soil erosion and degradation of water quality. (Eff. 6/10/93, Register 126)

**Authority:** AS 41.17.010 AS 41.17.055 AS 41.17.080

**11 AAC 95.355. Felling and bucking**. (a) An operator may not fell a tree into or remove a tree or vegetative debris from anadromous fish waters catalogued under AS 41.14.870 without the prior written approval of the deputy commissioner, or into or from other surface waters, without giving prior notice to the division. A tree felled into surface waters containing fish must provide fish passage in accordance with AS 41.14.840.
(b) If a tree is felled into fish-bearing surface waters not catalogued under AS 41.14.870, the operator shall remove the limbs and other small debris within 48 hours, and shall remove the bole as soon as the necessary equipment is at the site.
(c) If a tree is felled into nonfish-bearing surface or standing waters, the operator shall remove the tree and its debris at the earliest feasible time, to the extent necessary to avoid degradation of water quality.
(d) An operator may not buck or limb a tree or any portion of a tree lying between the banks of surface waters, except as necessary to remove the bole, limbs, or small debris from the water as required by 11 AAC 95.290(e) or this section.
(e) If feasible, an operator
(1) may not fell a tree into a riparian timber retention area; and
(2) shall fell a tree in a direction that minimizes damage to trees retained in a partial cut.
(f) A requirement of (a) or (b) of this section will, in the division's discretion, be waived if the division, with due deference to the deputy commissioner, requests that the material deposited in a water body remain to benefit fish resources. (Eff. 6/10/93, Register 126; am EO 107, 2003, Register 166)

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.080 AS 41.17.098

**11 AAC 95.360. Cable yarding**. (a) During yarding, an operator shall keep a log fully suspended above or yarded away from surface waters where feasible, in light of the necessary equipment being reasonably available to the operator and the importance of the surface water to fish habitat and water quality, unless full suspension or split yarding would likely cause greater degradation of surface water quality or impact to fish habitat than cross-stream yarding.

(b) When full suspension or split yarding is not used under (a) of this section, operations are subject to the following standards:

(1) unless logs are completely suspended above surface water, no timber may be yarded across anadromous fish waters catalogued under AS 41.14.870 without written approval from the deputy commissioner; no timber may be cable yarded across other anadromous or high value resident fish waters without prior notice to the division;

(2) cable yarding across surface waters must be conducted in a manner to avoid degrading water quality;

(3) where any cross-stream yarding occurs, an operator shall minimize damage to stream channels, stream banks, retained trees, understory vegetation, stumps, and root systems by a technique such as

(A) when 50 percent or more of a tree that is to be yarded across a stream will bridge the stream and lie on the side on which the yarder is located, the tree is directionally felled across the stream at right angles to the stream channel;

(B) minimizing the number of yarding corridors across streams;

(C) using bumper logs to protect stream banks;

(4) yarding up, down or across a V-notch channel must be accomplished in a manner that does not create significant erosion; and

(5) consistent with good safety practices, the direction of log movement between stream banks must be as close to right angles to the stream channel as is feasible.

(c) The following standards apply to cable yarding operations:

(1) when feasible, an operator shall use maximum available deflection;

(2) where feasible, an operator shall use uphill yarding techniques;

(3) where downhill yarding is used, an operator shall use deflection to lift the leading end of the log and minimize downhill movement of slash and soils;

(4) when yarding parallel to surface waters, and when in or near a riparian area, an operator shall make an effort to minimize soil disturbance and to prevent logs from rolling into surface waters or the riparian area; and

(5) when yarding across marshes and non-forested muskegs, an operator shall make an effort to minimize damage to vegetative cover.

(d) This section also applies to unconventional cable yarding systems. (Eff. 6/10/93, Register 126; am EO 107, 2003, Register 166)

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.080

**11 AAC 95.365. Tracked and wheeled harvest systems**. (a) A person may not skid timber or operate construction equipment or machinery in a water body catalogued as anadromous under AS 41.14.870, without written approval of the deputy commissioner, or in any other surface waters, marshes, or non-forested muskegs without prior notice to the division except, that equipment may be operated on frozen surface waters, marshes, or non-forested muskegs without prior notice to the division.

(b) An operator shall comply with the following restrictions on tracked and wheeled harvest systems in riparian areas:

(1) the number of skidding routes through an area must be minimized;

(2) consistent with good safety practices, log skidding must minimize damage to retained trees, stumps, root systems, understory vegetation, and soils; and

(3) one-end suspension of logs is required.

(c) Any debris that may enter surface waters from that part of a winter trail located over those surface waters must be removed by the operator before thaw to the extent necessary to avoid degradation of water quality. During winter logging, substantial concentrations of debris that may enter surface waters must be removed before thaw.

(d) An operator may not use a tracked skidder, a wheeled skidder, or a logging shovel during saturated soil conditions if degradation of surface and standing water quality is likely to result.

(e) An operator shall minimize damage from skidding to the stems and root systems of retained timber.

(f) When using tracked and wheeled vehicles, an operator shall

(1) use puncheon where significant ground disturbances may contribute to sedimentation of surface water;

(2) locate skid trails to minimize degradation of surface water quality;

(3) use water bars or other appropriate techniques as necessary to prevent or minimize sedimentation;

(4) keep skid trails to the minimum feasible width; and

(5) outslope skid trails where feasible, unless an inslope is necessary to prevent logs from sliding or rolling downhill off the skid trail.

(g) Upon the completion of operations at a site, a skid trail shall be water-barred according to the standards set out in 11 AAC 95.315 and 11 AAC 95.320 or otherwise stabilized to prevent erosion from entering surface waters.

(h) An operator may not use a tracked or wheeled skidder on a slope where this method of operations is likely to cause degradation of surface and standing water quality. (Eff. 6/10/93, Register 126; am EO 107, 2003, Register 166; am 6/24/2004, Register 170)

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.080 AS 41.17.098

**11 AAC 95.370. Slash**. (a) In an area where slash treatment is necessary to prevent or reduce the spread of fire, an operator shall reduce the concentration of slash by scattering, piling or windrowing, mechanized chipping, compacting, burying, or controlled burning, or other method approved by the division. Controlled burning requires approval from the Department of Environmental Conservation under 18 AAC 50.030(e) and may require a burning permit from the division.
(b) When slash is disposed of by burning, an operator shall protect a riparian area from fire, and shall burn under weather conditions that minimize the chance of air quality degradation and fire escape.
(c) Unstable slash concentrations around a landing must be disposed of or dispersed by the operator to prevent entry into surface waters.
(d) Except where burning will be completed before the next spring, an operator shall deposit slash in a location where it is not likely to enter a stream.
(e) If operating within a potential or known bark beetle infestation area, an operator shall include a spruce slash reduction, isolation, or abatement plan in the detailed plan of operations.
(f) The division will, in its discretion, require the operator, timber owner, or landowner to submit a treatment plan for felled timber or log decks left in the field for more than one growing season in an area of potential bark beetle infestation.
(Eff. 6/10/93, Register 126; am 2/24/00, Register 153)

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.080 AS 41.17.098

## Article 5. Reforestation

**Section**



**11 AAC 95.375. Reforestation requirement.** (a) The reforestation plan included in the detailed plan of operations must identify the preferred target species, regeneration technique, and site preparation method that the land owner will use to accomplish the reforestation requirements identified in this section.
(b) A landowner shall reforest harvested forest land to the fullest extent practicable unless:

(1) the land will be converted to another use in accordance with 11 AAC 95.200;

(2) the stand is significantly composed of insect and disease-killed, fire killed, wind thrown, or fatally damaged trees;

(3) in Region I, more than 50 percent of the original basal area of living trees

remain after the first entry and those trees are well distributed within the unit after harvest; or a minimum of 160 vigorous, undamaged, well-distributed saplings or merchantable trees per acre of a commercial species, or combination of commercial species, remain on the area harvested; or

(4) in Region II or Region III, vigorous, well-distributed residual commercial trees free from significant damage meet or exceed the following standards, or a combination of trees and seedlings approved by the division, meet the following standards:

| Average DBH of Remaining Stand – Inches | Minimum Stocking Standard (in trees per acre) |
|---|---|
| Greater than 9 | 120 |
| 6 to 8 | 170 |
| 1 to 5 | 200 |

(c) In areas within Region II or III where the natural stocking of commercial trees is below the minimum standards in (b)(4) before harvest, the division will consider a variation from the stocking levels required in (d) of this section.

(d) Reforestation must be achieved within five years after harvest in Region I and seven years after harvest in Region II and Region III as follows:

(1) in Region I, the number of vigorous, undamaged, and well distributed seedlings of commercial tree species must average at least 200 trees per acre and must have survived on site for a minimum of two years;

(2) in Region II or Region III, the number of vigorous, undamaged, and well distributed seedlings of commercial tree species must average a minimum of 450 trees per acre and must have survived on site for a minimum of two years;

(3) in all regions adequate reforestation means a combination of seedlings and residual trees that will meet the standards set out in this subsection and in (b) of this section; and

(4) no more than 10 percent of the harvest area or contiguous areas may be below the stocking levels as set out in (1) or (2) of this subsection.

(e) The division will, in its discretion, grant a reasonable extension of time to comply with the requirements of this section if planting or seeding fails or cannot be completed because of circumstances beyond the control of the forest landowner. To be eligible for a time extension the forest landowner must notify the division within 30 days of becoming aware of the circumstances requiring an extension. The written request must identify the reason for the extension and give a reasonable estimation of the time needed to achieve adequate reforestation in accordance with this section.

(f) Seeds used for reforestation must be from a similar latitude, climatic area, and elevation as the harvested area, unless otherwise approved by the division. (Eff. 6/10/93, Register 126)

(g) To apply for an exemption from reforestation requirements under (b)(2) of this

section, a landowner must request an exemption in the reforestation section of a detailed plan of operations under 11 AAC 95.220(10) or a change in operations under 11 AAC 95.230 and must demonstrate that the affected stand is significantly composed of insect and disease-killed, fire killed, wind thrown, or fatally damaged trees. If required by the division, the request must include a description of the sampling procedure, the sampling data, and a data summary. The data summary must show the number of commercial trees per acre that are dead or fatally damaged, and the percentage of commercial trees in the stand that are dead or fatally damaged. Sample plots must be located without bias throughout the affected stand. For stands 1,000 acres or less, the minimum sample density is 10 plots per 100 acres. For stands greater than 1,000 acres, the minimum sample density is six plots per 100 acres. Fewer plots are acceptable if the sample standard error is less than 10 percent of the mean. Either fixed diameter or variable plot sampling methods are acceptable. Sample plots must average approximately at least five sample trees of commercial value. Trees must be recorded by diameter class as either dead, damaged by insects, disease, fire, or wind, or not impacted. The division may accept other documentation or field evidence in lieu of sampling in cases where the extent of damage is obvious.

(h) Following receipt of the exemption request, the division may inspect the site to confirm the information submitted before determining whether the stand is significantly composed of insect and disease-killed, fire killed, wind thrown, or fatally damaged trees. The division will make this determination as part of the review of the detailed plan of operations or change in operations. In areas exempted from reforestation requirements, the landowner and operator shall protect existing reproduction from logging damage where feasible. (Eff. 6/10/93, Register 126; am 9/6/96, Register 139)

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.060 AS 41.17.080

**11 AAC 95.380. Natural regeneration.** (a) If a forest landowner in Region II or III intends to rely on natural regeneration for reforestation, the forest landowner shall ensure a seed source of well-formed, vigorous trees of commercial tree species. The seed source must be capable of distributing an adequate amount of seed throughout the harvest area to meet the reforestation requirements set out in 11 AAC 95.375(d). A forest landowner may not harvest the seed source identified for natural regeneration until the division has received a regeneration report showing that the harvest area has met the reforestation requirements set out in 11 AAC 95.375.

(b) If a forest landowner intends to rely on vegetative reproduction for reforestation, the harvest area must contain aspen, balsam poplar, western black cottonwood, red alder, or paper birch in sufficient distribution and condition to meet the reforestation requirements set out in 11 AAC 95.375. (Eff. 6/10/93, Register 126)

Authority: AS 41.17.010 AS 41.17.080

**11 AAC 95.385. Regeneration survey and report.** (a) A forest landowner in Region II or III shall conduct a regeneration survey and file a regeneration report with the division. A forest land owner in Region I shall file a regeneration report with the division and, if requested by the division, conduct a regeneration survey. A regeneration survey must be conducted in a manner acceptable to the division. In an area reforested by natural regeneration, planting, or artificial seeding, a regeneration report shall be submitted within

(1) five years after timber harvest in Region I; a visual overview is acceptable in areas of obvious reforestation, however, the division may require a regeneration survey if the division determines the visual overview is inaccurate;

(2) seven years after the timber harvest in Region II or III.

(b) The division will review a regeneration report within 30 days and will inform the forest landowner if field verification is planned. Field verification must occur within 12 months after receipt of the regeneration report. If the report or field verification shows that the reforestation requirements of 11 AAC 95.375 have not been met, the division will direct the forest landowner to correct the deficiencies according to a reasonable timeline set by the division. (Eff. 6/10/93, Register 126)

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.080

**11 AAC 95.390. Site preparation.** If site preparation for reforestation is necessary, a forest land owner

(1) shall incorporate reasonable measures to protect residual trees intended to be retained;

(2) shall avoid degradation of surface water quality;

(3) may not cause significant harm to fish habitat; and

(4) shall minimize the use of heavy equipment where soil compaction or impacts to drainage will cause degradation of site productivity. (Eff. 6/10/93, Register 126; am 6/24/2004, Register 170)

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.080

# Article 6. Forest fire protection

**Section**



**11 AAC 95.410. Permit.** (a) A burning permit is required during the fire season for the burning of any material in areas designated by the commissioner. A burning permit is not required when the burning is contained within an approved device, or for cooking, warming, or signaling fires.

(b) A burning permit may be obtained by applying to the commissioner. The applicant shall provide the commissioner with information as to the type, location, and person in charge of the burning, the area and material to be burned, and the number of persons controlling the burn.

(c) An applicant issued a burning permit may not burn any material covered by the permit unless he has the permit in his possession. The permit must be displayed to a designee of the commissioner upon request.

(d) Before issuing a permit, the commissioner will, in his discretion, require that he inspect the area and material to be burned. (Eff. 2/15/81, Register 77).

Authority AS 41.15.020 AS 41.17.020 AS 41.17.060 AS 41.17.080

**11 AAC 95.420. Content of permit.** (a) Each permit must be on a form provided by the department and must contain

(1) the name and address of permittee;

(2) the name of the person designated by the commissioner to issue the permit;

(3) the forest protection areawhere the burning will be conducted;

(4) the dates of issuance and expiration of the permit;

(5) a detailed description of the area where the burning will be conducted, designated by borough, subdivision, section, township, range, meridian, and local landmarks; and

(6) the amount of acres or area to be burned.

(b) Each permit may provide

(1) a specific time and date for the burn;

(2) the minimum number of persons and equipment employed to control or extinguish the burn; and
(3) limitation as to the size of the burn and the number of burns. (Eff. 2/15/81, Register 77)

Authority AS 41.15.020 AS 41.15.050 AS 41.17.080

**11 AAC 95.430. Denial, suspension, or revocation of permit.** (a) A burning permit will be denied, in the commissioner's discretion, if the commissioner is not permitted to inspect the area and material to be burned. The commissioner will, in his discretion, deny, suspend or revoke a permit, to protect life or property.
(b) A permit is suspended by an emergency closure to burning in the permit area. If the emergency closure remains in effect past the expiration date of a permit, the permit is revoked, and a new permit must be obtained. (Eff. 2/15/81, Register 77)

Authority AS 41.15.020 AS 41.15.050 AS 41.15.060
AS 41.15.090 AS 41.17.080

**11 AAC 95.440. Place of burning.** A permitted burn must be confined to an area surrounded by mineral soil, gravel or rock, or must be surrounded by a natural or constructed firebreak. (1 2/15/81, Register 77)

Authority AS 41.15.020 AS 41.15.050 AS 41.15.060
AS 41.15.090 AS 41.17.080

**11 AAC 95.450. Emergency closure.** The commissioner will, in his discretion, during the fire season, close an area to setting of fires, burning, smoking, entry, or other use of land, when, in his judgment, the activities would unduly increase the fire danger. (Eff. 2/15/81, Register 77)

Authority AS 41.15.020 AS 41.15.050 AS 41.17.080

**11 AAC 95.460. Public notice.** An emergency closure will be announced by publication in a newspaper of general circulation in the area closed of a public notice issued by the commissioner specifying the area closed and the effective date of closure. (Eff. 2/15/81, Register 77)

Authority AS 41.15.020 AS 41.15.050 AS 41.15.060
AS 41.17.080

**11 AAC 95.470. Environmental control.** Any burning authorized by a permit obtained under this chapter must be conducted in the manner required by 18 AAC 50, Air Quality Control Regulations, and 18 AAC 60, Solid Waste Regulations. (Eff. 2/15/81, Register 77)

Authority AS 41.15.020 AS 41.15.050 AS 41.15.060
AS 41.17.080

**11 AAC 95.480. Additional equipment for operations.** (a) All saws must be equipped with a spark-arresting device constructed to retain or destroy 90 percent or more of the carbon particles having a major diameter greater than 0.023 inches (0.584 mm). A spark-arresting device equipped with a woven screen with a maximum opening size of 0.023 inches (0.584 mm), constructed of heat- and corrosion-resistant wire at least 0.013 inches (0.330 mm) in diameter, will be considered in compliance with the requirement if the total screen opening area is not less than 125 percent of the engine exhaust-port area. The unit must be constructed to permit easy removal of the screen for field inspection, replacement, and cleaning. (b) The commissioner will, in his discretion, in writing, modify or waive any requirement of this section if he finds that conditions so warrant. The commissioner will take into consideration factors including, but not limited to, the type, size, and location of the operation and type of equipment in use, in making his decision.. (Eff. 2/15/81, Register 77)

Authority AS 41.15.020 AS 41.17.080

**11 AAC 95.490. Other governmental laws.** A permit issued under 11 AAC 95.400 – 11 AAC 95.430 is subject to local laws and regulations which are more restrictive. (Eff. 2/15/81, Register 77)

Authority AS 41.15.020 AS 41.15.060

**11 AAC 95.495. Definitions related to forest fire protection.** In 11 AAC 95.400 -- 11 AAC 95.495, "material" includes any organic or inorganic flammable substance such as trees, brush, weeds, grass, wood, lumber, trash, paper, clothes, tires, and chemicals. (Eff. 6/10/93, Register 126)

Authority AS 41.15.020 AS 41.17.080

# Article 7. General provisions

**Section**



**11 AAC 95.800. Designation of regions.** Repealed. [See AS 41.17.950(18 – 20) for Region designations]. (Eff. 6/10/93, Register 126; repealed 6/24/04, Register 170)

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.080

**11 AAC 95.805. Computation of time.** In computing a period of time under AS 41.17 or this chapter, the day of the act, event, or default from which the period of time applies is not included in the computation. The last day of the period is included, unless it is a Saturday, a Sunday, or a legal holiday, in which case the period of time runs until the end of the next day that is not a Saturday, Sunday, or legal holiday. If the period of time under AS 41.17 or this chapter is less than seven days, intermediate Saturdays, Sundays, and legal holidays are excluded in the computation. A half holiday shall be considered as other days and not a holiday. (Eff. 6/10/93, Register 126)

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.080

**11 AAC 95.810. Measurement of distances**. When a distance is specified in AS 41.17 or this chapter, the following applies:

(1) the distance measured must be horizontal distance rather than slope distance;

(2) the distance from a tidal zone is measured from the line of mean higher high water mark; and

(3) repealed 11/10/99 (Eff. 6/10/93, Register 126; am 11/20/99, Register 152)

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.080 AS 41.17.098

**11 AAC 95.815. Disposal of waste material.** (a) A petroleum product may not be disposed of onto land or into waters.
(b) Waste material, such as crankcase oil, fuel, grease, filters, hydraulic fluid and their containers, machine parts, wire rope, oil-contaminated soils, scrap culverts, or similar scrap wastes resulting from forest operations, must be disposed of in accordance with 18 AAC 60 and 18 AAC 62.
(c) Petroleum products and waste material as identified in this section must be handled in a manner that does not violate the water quality standards of 18 AAC 70. (Eff. 6/10/93, Register 126)

Authority: AS 41.17.010 AS 41.17.055 AS 41.17.080 AS 41.17.098

**11 AAC 95.820. Aesthetics.** On state and municipal forest land in or adjacent to areas of substantial importance to the tourism or recreation industry, an operator shall minimize the visual impact through timber sale design and layout and through post-harvest clean-up of major slash accumulations. (Eff. 6 /10/93, Register 126)

Authority: AS 41.17.010 AS 41.17.060 AS 41.17.080

**11 AAC 95.825. Water quality monitoring**. (a) This section establishes the water quality monitoring requirements for private forest land, state forest land, and other public land as defined in AS 41.17.950.
(b) The department, with due deference to the Department of Environmental Conservation, will, in its discretion, instruct the forest landowner, timber owner, operator, or forest manager to conduct routine or comprehensive water quality monitoring for the purpose of assessing the impacts of operations on water quality and protected water uses, and for the purpose of demonstrating the effectiveness of best management practices in meeting water quality standards. In determining the type and level of monitoring that will occur, the department will, in its discretion, and with due deference to the Department of Environmental Conservation, consider the

(1) likelihood of a significant impact on water quality;
(2) sensitivity of the receiving environment;
(3) availability of suitable personnel at the operating location to conduct and report the monitoring;
(4) contribution that water quality observation will make to other water quality data being collected in the area; and
(5) availability of monies.

(c) Routine monitoring will include, at a minimum, visual turbidity observations in association with each operation. Monitoring may also be required for water temperature. The forest landowner, timber owner, operator, or forest manager may request reevaluation of the requirement to monitor water temperature by a higher

level of authority. The specific monitoring parameters, locations, techniques, and sampling intervals will be determined by the department, with due deference to the Department of Environmental Conservation and in consultation with the forest landowner, timber owner, operator, or forest manager.

(d) If routine monitoring is required, the forest landowner, timber owner, operator, or forest manager shall

(1) at regular intervals, make water quality observations at one or more representative locations when the operation or activity is in progress;

(2) use simple, conventional, or qualitative assessment techniques for water quality measurement; and

(3) report each month to the department and to the Department of Environmental Conservation the observations made, data collected, and measures taken to correct any identified problem.

(e) Comprehensive monitoring may include biological, chemical, and physical measurements, including sediment. The department, with due deference to the Department of Environmental Conservation, will develop comprehensive monitoring plans, in consultation and cooperation with the Department of Fish and Game, the timber industry, forest managers, affected landowners, operators, and the affected public. The participants shall meet at least annually to discuss and develop monitoring plans. Forest landowners, timber owners, operators, and forest managers shall participate in the implementation of comprehensive monitoring plans in cooperation with the agencies. (Eff. 6/10/93, Register 126)

Authority: AS 41.17.010 AS 41.17.047 AS 41.17.055
AS 41.17.080 AS 41.17.098

**11 AAC 95.830. Monitoring effectiveness of forest practice regulations.** Consistent with AS 41.17.047(d) as coordinated by the Board of Forestry, the agencies and the timber industry will review the implementation and effectiveness of AS 41.17 and this chapter, including the best management practices adopted to implement AS 41.17. This review will be designed to determine the effectiveness of AS 41.17 and this chapter, including best management practices, in meeting state water quality standards, fish habitat requirements, and other forestry objectives. (Eff. 6/10/93, Register 126)

Authority: AS 41.17.010 AS 41.17.047 AS 41.17.055 AS 41.17.080

**11 AAC 95.835. Other rights not affected.** Except as otherwise provided in AS 41.17 and this chapter, nothing in this chapter alters or diminishes the authority of the Department of Environmental Conservation. (Eff. 6/10/93, Register 126)

Authority: AS 41.17.055 AS 41.17.080 AS 41.17.098

**11 AAC 95.900. Definitions.** In this chapter, unless the context specifically states otherwise:

(1) **"active road"** means a forest road being actively used for hauling logs, pulpwood, chips, or other major forest products, or rock and other road building materials;

(2) **"agency"** means the Department of Fish and Game, Department of Environmental Conservation, the deputy commissioner, or the division of forestry within the Department of Natural Resources;

(3) **"agencies"** means the Department of Fish and Game, the Department of Environmental Conservation, the deputy commissioner, and the division of forestry within the Department of Natural Resources;

(4) **"angle of repose"** means the angle at which a cut or fill slope will stand naturally;

(5) **"appropriate"** means warranted in light of potential effects on public resources;

(6) **"approved device"** includes conventional and portable stoves, fireplaces, and incinerators with adequate safeguards to prevent escapement of fire;

(7) **"bedrock"** means solid rock or accumulation of material more than three feet in diameter that predominate within a streambed or streambank;

(8) **"burning"** includes setting fires and excludes smoking;

(9) **"coastal district"** means the coastal resource district defined in AS 46.40.210;

(10) **"commercial operation"** means:
A. in Region I or II, an operation or harvest with an annual production in excess of 10,000 board feet of wood products for sale; and
B. in Region III, an operation or harvest with an annual production in excess of 30,000 board feet of wood products for sale;

(11) **"commercial timber harvest"** means:
A. in Region I or II, an operation or harvest with an annual production in excess of 10,000 board feet of wood products for sale; and
B. in Region III, an operation or harvest with an annual production in excess of 30,000 board feet of wood products for sale;

(12) **"commercial tree species"** means any species that is capable of producing a

merchantable stand of timber on a particular site or is being grown as part of a Christmas tree or ornamental tree-growing operation;

(13) **"commissioner"** means the commissioner of natural resources or the commissioner's authorized designee;

(14) **"conversion"** means a bona fide land use conversion to a use that is incompatible with timber growing;

(15) **"cribbing"** means brush, small poles, or small diameter logs used to increase the structural integrity of a snow ramp or ice bridge;

(16) **"cross drain"** means a cross ditch used to move water from one side of a road to the other to prevent accumulation of runoff without the need of a culvert or bridge;

(17) **"crowned"** means the running surface of a road is made higher in the center to direct runoff away from the centerline and into roadside ditches;

(18) **"DBH"** means the diameter of a tree at breast height (commonly four and one-half feet);

(19) **"debris"** means woody vegetative residue less than four inches in diameter and less than three feet in length resulting from a forest practice operation;

(20) **"degradation of water quality"** means a decrease in water quality such that the affected waters are unable to fully maintain existing or designated uses; "degradation of water quality" does not include changes that are temporary, localized, and reparable decreases in water quality; in this paragraph

(A) "reparable" means an effect on, or change to, a use or aquatic system due to a decrease in water quality that is reversible by natural processes such that the use or system will return to a state functionally identical to the original;

(B) "temporary" means 48 hours or less with respect to existing uses;

(21) **"department"** means the Department of Natural Resources;

(22) **"designated uses"** means those protected water uses specified in 18 AAC 70.020 for each water body or segment of a water body;

(23) **"division"** means the division of forestry in the department;

(24) **"end hauling"** means the removal and transportation of excavated material, pit or quarry overburden, or landing or road cut material from an excavation site to a deposit site not adjacent to the point of removal;

(25) **"erodible soils"** means soils exposed or displaced by a forest practice operation and soils that would be readily moved by the erodible force of moving water;

(26) **"estuarine area"** means that area at the mouth of a Type I-A, II-A, II-B, II-C, or II-D stream where fresh and salt water mix; the landward extent of an estuary is the limit of salt-tolerant vegetation, and the seaward extent is a stream's delta at mean lower low water;

(27) **"existing uses"** means those uses actually attained in a water body on or after November 28, 1975;

(28) **"fatally damaged tree"** means a tree that is damaged to the extent that it is unlikely to survive; breakage of limbs or tips, bark scrapes, or notching of a tree for tail holds does not constitute fatal damage as long as the tree is likely to survive;

(29) **"feasible"** means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, technical, and safety factors;

(30) **"first entry"** means the initial period of entry during a rotation or cutting cycle;

(31) **"fish-bearing waters"** means waters containing anadromous or high-value resident fish at any time during the year;

(32) [repealed 6/8/2007];

(33) **"forest practices forester"** means the field person assigned by the state forester to implement AS 41.17;

(34) **"full suspension"** means lifting the load completely clear of the ground, including obstacles;

(35) **"gravel"** means streambed and streambank material ranging in size from 0.16 inches to 2.5 inches in diameter;

(36) **"half holiday"** means an agency office is closed a portion of a day for circumstances beyond the control of the agency;

(37) **"inactive road"** means a forest road on which commercial hauling is discontinued for one or more logging seasons, and the forest landowner desires continuation of access for fire control, forest management activities, occasional or incidental use for forest products harvesting, or similar activities;

(38) **"incised channel"** means a channel having banks that, when viewing a vertical cross section through the water body, are sharply angular or perpendicular to water flow, are capable of containing the flow of the stream at annual high water, and in which the top of the embankment is at least six feet above the water surface during normal flow;

(39) **"infestation"** means attack and invasion by macroscopic organisms in considerable concentration;

(40) **"lake or pond"** means

(A) a confined fresh water body with perennial water, defined shorelines, and an identifiable inlet and outlet; and

(B) a confined fresh water body with perennial standing water and defined shorelines, and without an identifiable inlet or outlet, if the water body contains a population of anadromous or high value resident fish;

(41) **"landing"** means the location where logs are deposited by yarding or skidding equipment, including helicopters;

(42) **"load-bearing portion"** means that part of a road, landing, or other surface that consists of supportive soil, earth, rock, or other material directly below the working surface and the associated earth structure necessary for support of a part of a road;

(43) **"marsh"** means a frequently or continually inundated area of saturated soils characterized by emergent reeds, grasses, and sedges;

(44) **"mass wasting"** means the slow to rapid downslope movement of significant masses of earth material of varying water content, primarily under the force of gravity;

(45) **"material"** means the same as in 11 AAC 71.910;

(46) **"material extraction site"** means an excavation site outside the limits of construction where material necessary for that construction, such as fill material, are extracted;

(47) **"mean higher high water mark"** means, for estuaries, an elevation below which the presence of marine water is so common and of sufficient duration as to prevent establishment of forest floor mosses and other salt-intolerant vegetation;

(48) **"mineral soil"** means a soil containing insufficient organic material to sustain fire;

(49) **"minimize"** means to limit to the extent feasible, and does not include the requirement of improving naturally existing conditions;

(50) **"non-forested muskeg"** means an expanse of saturated, poorly drained soil, including a swamp or bog, that is characterized by accumulation of peat or partially decayed plant matter, has no significant inflows or outflows, supports acidophilic mosses, and is not stocked with trees;

(51) **"normal channel flow conditions"** means that a stream's discharge is approximating mean flow as determined by a nonquantitative field assessment; this condition would usually occur no earlier than 2 days after a significant rain event; this condition would not occur during active snow melt, a distinct drought period, freeze up, or any other extraordinary conditions;

(52) **"operation"** means the same as in AS 41.17.950; except that in 11 AAC 95.340 -- 11 AAC 95.390, "operation" also includes land clearing activities on forest land;

(53) **"ordinary high water mark"** or "OHWM" means the mark along the bank or shore up to which the presence and action of the tidal or nontidal water are so common and usual, and so long continued in all ordinary years, as to leave a natural line impressed on the bank or shore and indicated by erosion, shelving, changes in soil characteristics, destruction of terrestrial vegetation, or other distinctive physical characteristics;

(54) **"organic mat"** means the dead and living layer of plant material that has accumulated over time on the surface of the mineral soil;

(55) **"outsloping"** means to shape the running surface of a road in a manner that carries runoff to the downslope side of the road; "outsloping" is used for roads without roadside ditches;

(56) **"partial cut"** means tree removal other than a clear cutting, such as removing only part of a stand;

(57) **"permanent,"** when used to describe a road, or when used to describe a bridge, culvert, or other crossing structure, means a road or structure that will be left in place for at least seven years from the date of original construction;

(58) **"physical blockage"** means a natural feature or an authorized artificial structure that prevents upstream migration of fish, including a presumed physical blockage under 11 AAC 95.265(g)(4);

(59) **"presence or evidence of anadromous fish"** means the documented occurrence of live anadromous fish, eggs, or their remains;

(60) **"project"** means
(A) for private land, a detailed plan of operation as described under 11 AAC.95.220,
(B) for public land, an activity or use as defined under 6 AAC 50.190(14); and
(C) an activity subject to federal consistency review under 33 U.S.C. 1329 (Clean Water Act, sec. 319), as amended February 4, 1987;

(61) **"puncheon"** means a slab of timber used for flooring or footing, or woody material used as a mat in overlay road construction;

(62) **"reforest"** means the successful reestablishment of commercial tree species following harvest;

(63) **"rehabilitate"** means to control and stabilize erodible material to the extent feasible, through construction of a control structure, revegetation, or another method;

(64) **"relief culvert"** means a structure to relieve surface runoff from roadside ditches to prevent excessive buildup in water volume and velocity;

(65) **"residual trees"** means commercial tree species left standing in a harvest unit or other specified area after completion of harvest or, for purposes of 11 AAC 95.375, immediately before beginning reforestation activities in that unit or area;

(66) **"rubble"** means streamed or streambank material ranging in size from 2.5 inches to 3 feet in diameter;

(67) **"road reconstruction"** means the process of making an inactive or closed road useable, including reinstalling drainage structures, removing vegetation, and resurfacing;

(68) **"sand"** means streambed or streambank material with a diameter of 0.1 mm to 0.4 mm;

(69) **"sapling"** means a live tree 1.0 inch to 5.0 inches in DBH;

(70) **"saturated soil"** means soil that has all of its voids completely filled with water, to the point where the addition of any further water will result in a rising surface water table;

(71) **"seedling"** means a live tree less than 1.0 inches in DBH, or under 10 feet tall;

(72) **"sidecasting"** means the act of moving excavated material to the side and depositing that material within the limits of construction or dumping it over the side and outside the limits of construction;

(73) **"silt"** means streambed or streambank material with a diameter of less than 0.1 mm;

(74) **"skid trail"** means a route used by tracked or wheeled skidders to move logs to a landing or road;

(75) **"slash"** means pieces of woody vegetative residue greater than five inches in diameter or longer than three feet in length resulting from a forest practice operation;

(76) **"spoil"** means excess material removed as overburden or generated during road or landing construction that is not used within the limits of construction;

(77) **"spring"** means a place where subterranean water naturally flows from a rock or soil upon the land or into a body of surface water;

(78) **"standing water"** means a water body, one half acre or larger, that has defined banks but no surface outlet;

(79) **"state forester"** means the same as in AS 41.17.020 and, for the purposes of administering this chapter, includes division employees to whom the state forester has delegated responsibility for carrying out AS 41.17 and this chapter;

(80) **"stream"** means a perennial flow of water along a defined channel, or an intermittent flow of water along a defined channel that is significant for protection of downstream water quality;

(81) **"substantial factor"** means a proximate or direct cause among two or more causes operating to bring about or give rise to an injury and that is a cause which reasonable persons would regard as a basis for responsibility for that injury;

(82) **"surface waters"** means fresh water springs, lakes, or ponds, or a freshwater stream the designated uses of which are protected under 18 AAC 70, regardless if those waters are classified under AS 41.17.950(31) – (41);

(83) **"temporary,"** when used to describe a road, or when used to describe a bridge, culvert, or other stream crossing structure, means a road or structure that will be left in place for a period of less than seven years from the date of original construction;

(84) **"timber"** means merchantable trees, standing or down, of a commercial tree

species;

(85) **"vegetative reproduction"** means coppice, suckering, or sprouting from the roots or stump sprouts or from buds around the root collar;

(86) **"vigorous"** means live, free of disease or gross defects, exhibiting terminal or annual growth, capable of continued growth, and appears able to survive until the end of rotation; a conifer must contain a minimum of one third live crown;

(87) **"water bar"** means a diversion ditch or hump created in a trail or road for the purpose of carrying surface water runoff into the vegetation duff, ditch, or other dispersion area so that it does not gain the volume and velocity that cause soil movement and erosion;

(88) **"well distributed"** means that average stocking levels meet or exceed the minimum standards with no more than 10 percent of the harvest unit excluding roads, landings, and material sites, below minimum standards;

(89) **"windthrown"** means a natural process by which trees are uprooted or sustain severe damage by the wind;

(90) **"winter road"** means a road that has a load-bearing capacity derived from a combination of frost, snow, or ice that can seasonally support highway vehicles and logging equipment;

(91) **"fall"** means a free fall or precipitous descent of water or a fast white water cascade;

(92) **"low value"** has the meaning given in AS 41.17.116(d)(1);

(93) **"prudent"** has the meaning given in AS 41.17.116 (d)(2);

(94) **"deputy commissioner"** means the deputy commissioner of natural resources appointed under AS 44.37.055 for purposes of AS 44.37.060;

(95) **"Region I," "Region II," and "Region III"** have the meanings given in AS 41.17.950. (Eff. 2/15/81, Register 77; am 11/21/82, Register 84; am 6/10/93, Register 126; am 11/20/99, Register 152; am 6/24/2004, Register 170; am 6/8/2007; Register 182)

Authority: AS 41.15.050 AS 41.17.010 AS 41.15.055 AS 41.15.060
AS 41.17.080 AS 41.15.090 AS 41.17.900

**Editor's note:** Activities subject to federal consistency review under 33 U.S.C. 1329, as mentioned in 11 AAC 95.840(60), are described in a publication entitled, "Alaska Nonpoint Source Pollution Control Strategy", available from the Department of Environmental Conservation, Division of Environmental Quality, Water Quality Section, 410 Willoughby Avenue, Juneau, AK 99801-1795.

# TOPIC GUIDE
# FOREST RESOURCES AND PRACTICES REGULATIONS
# April 2007

Note: This guide is presented as an aid and is not all inclusive.

| TOPIC | Sec. 11 AAC 95 |
|---|---|
| Aesthetics | .820 |
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| Change in operations | .230; also .220(d), .235(a), .375(g-h) |
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| Clearing of spruce trees | .195; also .900(52) |
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| Drainage (culverts) | .305; also .290(f), .295, .315(c)(e) |
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| Inspections (fire) | .410(d), .430, .480 |
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| Material sites (rock & gravel pits) | .325; also .220(a)(7), .230(a)(1), .275(a)(4) |
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| Reforestation | .375-.390; also .185(a), .200(b), .220(10), .900(62) |
| Regions (boundaries) | .800 |
| Rehabilitation | .330; also .315(e), .325(d), .900(63) |
| Riparian areas | .260-.280; also .185(a), .220(14), .230, .235(d), .240, .285(b), .325(a-b), .335(a), .350(c), .355(e), |

| | |
|---|---|
| | .360(c)(4), .365(b), .370(b) |
| Roads | .285-.320; also .220(a)(7), (15); .230(a), (e); .275(a); .280(d)(1) |
| Rock and gravel pits | .325 |
| Slash disposal | .370; also .195(d), .290(b-c), .305(a)(7), .345(b-c), .360(c)(3), .820, .900(75) |
| Stream type & waterbody classes | .265; also .220(a)(5)(A) |
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| Timber harvest | .340, .365; also .220(a)(5)A), (6); .280(d); .820 |
| Time (computation) | .805 |
| Uses within a riparian area | .275 |
| Variation procedures | .235, .240 (small streams); also .220(a)(14), .335(a), .375(c) |
| Winter roads and trails | .290(f-ih); .315 (f), .365(c), .900(90) |
| Yarding | .220(a)(6), (12); .240(d)(4); .280(d)(3); .360 |

## STREAM CLASSIFICATION June 2007

| Stream Type | Private land | State land and other public land |
|---|---|---|
| **All Regions** | Use 11 AAC 95.265 (b) through (f) for specific procedures on classifications (i.e., water body classification changes along its length, field inspections, field reviews, reclassifications, saltwater bodies). [11 AAC 95.265 (b)-(f)] | |
| **Region I** | | |
| Type I-A water body | See also 11 AAC 95.265(g) and its Table A for clarifications on determining when a stream is anadromous. An anadromous water body that<br>(A) is a stream or river of any size having an average gradient of eight percent or less, with banks held in place by vegetation, channels that are not incised, and a substrate composed of rubble, gravel, sand, or silt;<br>(B) consists of wetlands and lakes, including their outlets; *and*<br>(C) is an estuarine area delimited by the presence of salt-tolerant vegetation.<br>[11 AAC 95.265(a)(1) and AS 41.17.950(31)] | Classification of surface waters must indicate whether or not the surface waters are anadromous or contain high value resident (HVR) fish under AS 41.17.950. [AS 41.17.950(1),(10) and 11 AAC 95.265(a)(4)] |
| Type I-B water body | An anadromous water body that does not meet the definition of a Type I-A water body. [11 AAC 95.265(a)(1) and AS 41.17.950(32)] | |
| Type I-C water body | A water body that is not anadromous, that is a tributary to a Type I-A or Type I-B water body, and that has a gradient of 12 percent or less. [11 AAC 95.265(a)(1) and AS 41.17.950(33)] | |
| Type I-D water body | A water body that is not anadromous, that is tributary to a Type I-A or Type I-B water body, and that has a gradient greater than 12 percent. [11 AAC 95.265(a)(1) and AS 41.17.950(34)] | |
| Other water bodies | Any surface waters that do not meet the criteria set out in AS 41.17.950(31)-(34) do not have a riparian area, but are subject to surface water quality protection best management practices in accordance with this chapter. [11 AAC 95.265(a)(1)] (See also All Regions, Other water bodies, below) | |

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| **Region II** (See also 11 AAC 95.265(g) and its Table A for clarifications on determining when a stream is anadromous.) | |
| Type II-A water body | A nonglacial stream<br>(A) greater than 50 feet wide that has anadromous or high value resident fish and that has an unconfined and dynamic channel; and<br>(B) that typically has point bars, islands, scour planes, active or recent side channels, and areas of obvious bank erosion. [AS 41.17.950(35)] |
| Type II-B water body | A glacial stream that has anadromous or high value resident fish and that is not a glacial Type II-C water body. [AS 41.17.950(36)] |
| Type II-C water body | A water body that has anadromous or high value resident fish that<br>(A) is a nonglacial water body >3' wide and ≤50' wide at ordinary high water mark (OHWM) that has an unconfined and dynamic channel;<br>(B) is a nonglacial water body >3' wide at OHWM that has a confined channel;<br>(C) is a reach of the Kenai River, Kasilof River, or Lake Fork Crescent River >3' wide at OHWM; **or**<br>(D) is a lake or pond. [AS 41.17.950(37), and for definition of "lake and pond," 11 AAC 95.900(40)] |
| Type II-D water body | A nonglacial stream that is ≤3' at OHWM that has anadromous or high value resident fish; **or** a reach of the Kenai R., Kasilof R., or Lake Fork Crescent R. that is ≤3' at OHWM that has anadromous or high value resident fish. [AS 41.17.950(38)] |
| **Region III** | |
| Type III-A water body | (A) nonglacial high value resident (HVR) fish water body >3 feet in width at the ordinary high water mark;<br>(B) nonglacial anadromous water body; or<br>(C) backwater slough; [11 AAC 95.265(a)(3) - private, 95.265(a)(5) – other public land, and AS 41.17.950(39) – defin.] |
| Type III-B water body | A glacial high value resident fish water body or a glacial anadromous water body; does not include a glacial backwater slough; [11 AAC 95.265(a)(3) - private, 95.265(a)(5) – other public land, and AS 41.17.950(40) - definition] |
| Type III-C water body | A nonglacial high value resident fish water body that is ≤3' wide at the ordinary high water mark and that does not contain anadromous fish. [11 AAC 95.265(a)(3) - private, 95.265(a)(5) – other public land, and AS 41.17.950(41) – def.] |
| **All Regions** | |
| Other water bodies | For all lands, the operations recognized under this chapter shall be conducted in a manner that does not cause or constitute a substantial factor in causing a degradation of water quality. [11 AAC 95.185(b)] All surface waters, regardless if those waters are classified under AS 41.17.950, are protected under 18 AAC 70 [11 AAC 95.900(82)]. |

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| State land | In the absence of a site-specific determination by the deputy commissioner, the state forester shall presume for planning purposes that a stream is anadromous if it is connected to anadromous waters that are without department documentation of a physical blockage and has a stream gradient of 8 percent or less. [AS 41.17.118(c)] |

**RIPARIAN STANDARDS June 2007** General guidance: AS 41.17.115 (Intent for riparian areas)

| Stream type | Private land | State land | Other public land |
|---|---|---|---|
| | | | |
| **Region I** | | | |
| Type I-A water body | (A) operations within 100 feet of the water body or to the break of the slope, whichever area is smaller, shall be conducted in compliance with slope stability standards established in regulations adopted under this chapter; and<br>(B) harvest of timber may not be undertaken within 66 feet of the water body; [AS 41.17.116(a)(1)] | (A) harvest of timber may not be undertaken within 100 feet immediately adjacent to an anadromous or high value resident fish water body;<br>(B) between 100 and 300 feet from the water body, harvest of timber may occur but must be consistent with the maintenance of important fish and wildlife habitat as determined by the state | Harvest of timber may not be undertaken within 100 feet of an anadromous or high value resident fish water body; [AS 41.17.119(1)] |
| Type I-B water body | (A) operations within 100 feet of the water body or to the break of the slope, whichever area is smaller, shall be conducted in compliance with slope stability standards established in regulations adopted under this chapter; and<br>(B) harvest of timber may not be undertaken within 66 feet of the water body or to the break of the slope, whichever area is smaller; [AS 41.17.116(a)(2)] | | |

| | | | |
|---|---|---|---|
| Type I-C water body | (A) operations within 100 feet of the water body or to the break of the slope, whichever area is smaller, shall be conducted in compliance with slope stability standards established in regulations adopted under this chapter; and<br>(B) the operator shall, where prudent, retain low value timber within 25 feet of the water body or to the limit of the area described in (A) of this paragraph, whichever area is greater, where the width of the water body is<br>(i) greater than 13 feet at the ordinary high water mark; or<br>(ii) greater than eight feet at the ordinary high water mark if the channel is incised; [AS 41.17.116(a)(3)] | forester with due deference to the deputy commissioner. [AS 41.17.118(a)(1)] | |

| Stream type | Private land | State land | Other public land |
|---|---|---|---|
| Type I-D water body | (A) operations within 50 feet of the water body or to the break of the slope, whichever area is smaller, shall be conducted in compliance with slope stability standards established in regulations adopted under this chapter; and<br>(B) the operator shall, where prudent, retain low value timber within 25 feet of the water body or to the limit of the area described in (A) of this paragraph, whichever area is greater, where the width of the water body is<br>(i) greater than 13 feet at the ordinary high water mark; or<br>(ii) greater than eight feet at the ordinary high water mark if the channel is incised. [AS 41.17.116(a)(4)] | | |
| | | | |
| **Region II** | | | |
| Type II-A water body | Along a Type II-A water body, harvest of timber may not be undertaken within 150' of the water body; additionally, harvest of timber may not be undertaken along outer bends subject to erosion within 225' of the water body or to the terrace top break, whichever is smaller;<br>The length of the augmented buffer along an outer bend subject to erosion on Type II-A or II-B water bodies is 8 times the stream width measured on a reach between bends at a point not widened by a point bar or channel movement; the augmented buffer must be located so that 3 stream widths are upstream and 5 stream widths are downstream of the point opposite the apex of the point bar. [AS 41.17.116(b)(1), AS 41.17.116 (b)(5); AS 41.17.118(a)(2)(A),(E); AS 41.17.119(2)] | | |
| Type II-B water body | Along a Type II-B water body, harvest of timber may not be undertaken within 150' of the water body; additionally, harvest of timber may not be undertaken along outer bends subject to erosion within 325' of the water body or to the terrace top break, whichever is smaller;<br>The length of the augmented buffer along an outer bend subject to erosion on Type II-A or II-B water bodies is 8 times the stream width measured on a reach between bends at a point not widened by a point bar or channel movement; the augmented buffer must be located so that 3 stream widths are upstream and 5 stream widths are downstream of the point opposite the apex of the point bar. [AS 41.17.116(b)(2), AS 41.17.116 (b)(5); AS 41.17.118(a)(2)(B); AS 41.17.119(2)] | | |

| Stream type | Private land | State and other public land | |
|---|---|---|---|
| Type II-C water body | Along a Type II-C water body, harvest of timber may not be undertaken within 100' of the water body. [AS 41.17.116(b)(3)] | Along a Type II-C water body, harvest of timber may not be undertaken within 100' of the water body. [AS 41.17.118(a)(2)(C), AS 41.17.119(2)] A timber harvest operation within 180 feet of a non-glacial Type II-C waterbody where the riparian retention area under AS 41.17.118 or AS 41.17.119 is not forested shall be designed to retain forest cover necessary to maintain stream temperature. For a harvest on state land managed by DNR, the state forester will determine what forest cover is necessary to maintain stream temperature during the review of the FLUP. On other public land, the state forester will determine, during review of the DPO, whether the forest cover proposed for retention is sufficient to maintain stream temrperature. In making this determination, the state forester will give due deference to the deputy commissioner. [11 AAC 95.260(b)] | |
| Type II-D water body | Along a Type II-D water body, there is a 100-foot riparian area; harvest of timber may not be undertaken within 50' of the water body. [AS 41.17.116 (b)(4), AS 41.17.118(a)(2)(D), (E), AS 41.17.119(2)] Between 50 feet and 100 feet from a Type II-D water body, harvest may occur, but shall not create flow paths or ruts that could channelize sheet flow or introduce sediment into the water body. [11 AAC 95.275(d)] | | |
| All Region II Types | Where an estuarine area is adjacent to an anadromous or high value resident fish water body, the riparian retention area for the adjacent water body applies to the estuarine area. [AS 41.17.116(b)(6), AS 41.17.118(a)(2)(F), AS 41.17.119(2)] | | |
| | | <u>On state land only</u>: Along Type II-A, II-B, II-C, and II-D water bodies, harvest of timber may occur between the landward extent of the riparian retention area and 300 feet from the water body, consistent with the maintenance or enhancement of important wildlife habitat as determined by the state forester with due deference to the deputy commissioner [AS 41.17.118 (a)(2)(G)] | |

**RIPARIAN STANDARDS,** continued

| Stream Type | Private land | State land | Other public land |
|---|---|---|---|
| **Region III** | | | |
| Type III-A water body | Harvest of timber may not be undertaken within 66 feet of the water body; [AS 41.17.116(c)(1)] | Harvest of timber may not be undertaken within 100 feet of the water body, except that, between 66 feet and 100 feet from the water body, harvest of timber may be undertaken where consistent with the maintenance of important fish and wildlife habitat as determined by the state forester with the concurrence of the deputy commissioner; [AS 41.17.118(a)(3)(A) and AS 41.17.119(3)] | |
| Type III-B water body | Harvest of timber may not be undertaken within 33 feet of the water body; between 33 feet and 66 feet from the water body, up to 50 percent of standing white spruce trees having at least a nine-inch diameter at breast height may be harvested without requiring a variation; [AS 41.17.116(c)(2)] | Harvest of timber may not be undertaken within 50 feet of the water body; between 50 feet and 100 feet from the water body, up to 50 percent of standing white spruce trees having at least a nine-inch diameter at breast height may be harvested; [AS 41.17.118(a)(3)(B) and AS 41.17.119(3)] | |
| Type III-C water body | Harvest of timber within 100 feet of the water body must be located and designed primarily to protect fish habitat and surface water quality as determined by the state forester with due deference to the deputy commissioner. [AS 41.17.116(c)(3)] | Harvest of timber within 100 feet of the water body must be consistent with the maintenance of important fish and wildlife habitat as determined by the state forester with due deference to the deputy commissioner; [AS 41.17.118(a)(3)(C) and AS 41.17.119(3)] | |

**SLOPE STABILITY STANDARDS April 2007**

An operator shall adhere to the following standards when conducting timber harvest activity in an area identified in the table below, summarizing 11 AAC 95.280(a) and (b):

(1) avoid constructing a road that will undercut the toe of a slope that has a high risk of slope failure;

(2) within the riparian area of streams not subject to AS 41.17.116(a)(3)(B) or 41.17.116 (a)(4)(B) [guidelines for retaining low-value timber on Type I-C and Type I-D streams], in the operator's discretion, leave low-value timber where prudent;

(3) achieve full or partial suspension in yarding operations;

(4) fall timber away from streams in V-notches; and

(5) avoid sidecasting of displaced soil from road construction to the maximum extent feasible. [11 AAC 95.280(d)]

<table>
<tr><th>Stream Type</th><th>Private land</th><th>State land and other public land</th></tr>
<tr><td>Type I-A</td><td rowspan="3">The area within 100 feet of an ordinary high water mark of a Type I-A, I-B, or I-C water body or to the break of the slope to that water body, whichever occurs first [11 AAC 95.280(a)(1)]</td><td rowspan="4">Within 100 feet of an ordinary high water mark of an anadromous or high value resident fish water body, or a water body with a gradient of 12 percent or less that is tributary to an anadromous or high value resident fish water body, and within 50 feet of all other tributaries to anadromous and high value resident fish water bodies; [11 AAC 95.280(b)(1)]</td></tr>
<tr><td>Type I-B</td></tr>
<tr><td>Type I-C</td></tr>
<tr><td>Type I-D</td><td>The area within 50 feet of an ordinary high water mark of a Type I-D water body or to the break of the slope, whichever occurs first [11 AAC 95.280(a)(2)]</td></tr>
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# Notes